

Contributors to Faculty Wellness in an Academic Emergency Department Before and During the Pandemic: A Qualitative Study

Nicholas D. Hartman, MD^{1*}, Casey Glass, MD¹, Manoj Pariyadath, MD¹, Kathleen Hosmer, MD¹, Meagan Hunt, MD¹, Nicklaus Ashburn, MD¹, Cedric Lefebvre, MD¹

ABSTRACT

Introduction: Burnout is well known as a prevalent hazard in emergency medicine (EM) careers, but the literature is less clear about what specific work-related factors actually contribute to wellness and burnout among academic EM faculty.

Objectives: 1) To explore themes and specific concerns that contribute to faculty wellness in an academic emergency department, in a qualitative fashion. 2) To determine whether these themes and concerns changed appreciably in the time of the COVID-19 pandemic.

Methods: EM faculty members at an academic institution were invited to participate in the study, including an on-line survey and a structured interview. Survey results were analyzed using descriptive statistics, interviews were coded and analyzed in qualitative fashion with frequency of themes as the primary outcome.

Results: 33 of 40 EM faculty members at one institution participated in interviews with the study team. Twenty-four returned Maslach Burnout Inventory (MBI) and Areas of Worklife surveys, with 5 of the 24 registering as burned out by standard definitions. In qualitative analysis of the interviews, the most common negative themes were psychological stress, balancing work and family life, negative perceptions of non-departmental administration and certain aspects of clinical work. The most common positive themes included positive views of departmental leadership, teamwork among colleagues, trainees and others, and self-worth derived from doing the work of EM. Themes before and during the COVID-19 pandemic were similar, with an increase in positive comments related to patient care during the COVID-era ($p = 0.02$).

Conclusion: Among one group of EM faculty, positive drivers of wellness were primarily relational in nature, including working in teams to care for patients and carry out the various missions of academic EM. Negative drivers were consistent with previous work in burnout among medical professionals, to include stress, tensions between work and family obligations, and conflicts in the care and work environments.

<https://doi.org/10.55504/2578-9333.1198>

Received Date: Jan 5, 2023

Revised Date: Oct 12, 2023

Accepted Date: Jan 22, 2024

Publication Date: Aug 01, 2024

Website: <https://ir.library.louisville.edu/jwellness/>

Recommended Citation:

Hartman, Nicholas D.; Glass, Casey; Pariyadath, Manoj; Hosmer, Kathleen; Hunt, Meagan; Ashburn, Nicklaus; and Lefebvre, Cedric (2024) "Contributors to Faculty Wellness in an Academic Emergency Department Before and During the Pandemic: A Qualitative Study," *Journal of Wellness*: Vol. 5 : Iss. 2, Article 9.

Affiliations: ¹Wake Forest University School of Medicine



INTRODUCTION

Physician burnout is a persistent threat to the healthcare workforce around the world, leading to increased physician turnover and increased healthcare costs, while negatively affecting patient care and impacting career development [1, 2]. Emergency medicine (EM) physicians suffer from burnout at much higher rates than other specialists generally, and while some studies have suggested that other specialties have experienced improvements in rates of burnout in recent years, emergency medicine burnout rates have remained the same. In one recent sample, 56% of EM physicians reported burnout [3]. Burnout research to date has focused on prevalence, as well as personal, environmental, and organizational factors negatively affecting physicians' well-being. These factors can be highly localized to particular organizations and practices as well as individual physicians. Various interventions have demonstrated modest but meaningful improvements in measures of burnout [4, 5].

While a focus on physician burnout is important, attention to physician wellness and satisfaction at work has motivated an effort to identify drivers of this construct as well. Satisfaction with work-life integration (a marker for physician wellness) remains a challenge for emergency medicine physicians [3]. Organizational approaches to physician well-being, as opposed to leaving that responsibility with the individual worker, has been associated with improved resiliency, improvements in employee satisfaction, decreased healthcare costs, and improvements in the patient experience [6, 7].

There are several limitations to the current approach to studying and improving physician wellness, fulfillment and burnout. Most assessment tools, like the Maslach Burnout Inventory (MBI), focus on burnout rather than wellness, with physician well-being and a positive work-life balance being assessed primarily by the absence of burnout. Only recently have physicians developed tools to assess drivers of wellness. A recent survey-based study of EM faculty has added important

*Correspondence To: Nicholas D. Hartman
Email: nhartman@wakehealth.edu

Copyright: © 2024 The author(s). This is an open access article distributed under the terms of the Creative Commons Attribution 4.0 International License (CC BY 4.0), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

context to the discussion of wellness and burnout in this group, finding that “meaningfulness of work” is associated with greater likelihood of professional fulfillment and lower likelihood of burnout, among other findings [8]. 39% of faculty in that sample reported burnout. While tremendously impactful, this survey-based approach may not illuminate the entirety of the physician experience and perspective in this important topic.

Complicating the current study of wellness and burnout among healthcare workers is the COVID-19 pandemic. A recent survey on EM physicians during the COVID-19 pandemic pointed towards a decline in multiple wellness factors: decreased happiness while at work, diminished sense of control and increased feelings of stress while not at work were noted. EM physicians were also more concerned about the health of their families and themselves [9]. Thematic content analysis of survey responses by Hennein et. al revealed alarming rates of probable major depression, PTSD, and alcohol use disorder among healthcare workers during the pandemic [10]. The many pressures and disruptions associated with COVID-19 have affected the landscape of EM physician burnout and wellness in ways that are difficult to disentangle.

A small group of EM faculty members at one academic institution undertook a project in 2019 to better understand what factors might drive EM faculty wellness and/or burnout. Discussions and literature review revealed that true drivers of faculty wellness are not well-known or described. We hypothesized that some drivers of burnout and wellness among our physician group are not well identified on standardized assessment instruments and could be identified through a combination of standardized assessment and structured interviews with qualitative analysis. We further sought to identify targets for wellness improvement among our faculty group. This investigation was interrupted by the COVID-19 pandemic, providing an opportunity to compare findings from before the onset of the pandemic to those during.

METHODS

Study Design and Setting

This study was approved by the IRB at the study site (IRB00053400). This is an observational cohort study of a group of academic EM physicians at a large academic center. A qualitative method, including faculty interviews, was chosen in an effort to identify emergent themes, specific concerns and to uncover underreported areas of interest. A data collection instrument (the interview script) was developed and evaluated for content and response process validity. The script, over several iterations, was targeted toward identifying global as well as personal experiences that might drive wellness for academic EM physicians and included open ended questions to allow for free discussion. The faculty members who were part of the research team interviewed one another first using the interview instrument and survey materials to identify practical problems and to ensure response process validity. After informed consent, enrolled faculty members were asked to participate in an on-line administration of two validated instruments [11, 12], the Maslach Burnout Inventory Human Services Survey for Medical Personnel (MBI) [13] and Areas of Worklife Survey (AWS)

[14], both supplied by Mind Garden. Participants then underwent a one-on-one recorded interview about contributors to their wellness (see **Appendix A** for the interview instrument).

Study Population

Each faculty member who was currently practicing at our academic emergency department in 2019 was assigned to one member of the study committee for recruitment and interview. This potential pool of faculty participants included 40 individuals, 32 were men and 8 were women. Potential faculty participants were emailed to solicit participation and offered no specific incentive. Faculty members were recruited between 2019-2021, with a 10-month hiatus due to COVID-19 and the need for social distancing.

Outcomes

Following the interview, quotations from each recorded interview were abstracted by two research team members to a Microsoft Excel (2016) spreadsheet, highlighting significant concerns, statements and quotations of interest. These de-identified entries were then sent for thematic analysis by a separate group of study team members. Using Grounded Theory as a guide, this subset of the study team evaluated the items and deciphered emergent themes. Each comment was categorized by a domain, and labeled as “positive,” “negative,” or “neutral”—according to group consensus on whether the participant intended the comment to be a positive, negative, or neutral driver of their wellness. The interviews preceding the COVID-19 pandemic (February 2020 and prior) were analyzed separately from those conducted during the pandemic (March 2020 and following).

Statistical Analysis

The MBI and the AWS were analyzed using descriptive statistics, with results reported for pre-COVID and COVID-era subgroups. To compare domains from pre-COVID to the COVID-era, we considered each domain response as a two-level variable (“positive” vs “neutral” or “negative”). Due to the nature of the dataset and confidentiality concerns, paired analysis of data between pre-COVID to the COVID-era was not possible. We determined the absolute differences in percent of responses being “positive” in the COVID-era to the pre-COVID era. These differences were estimated along with 95% confidence limits (95% CL), and the proportion of “positive” responses were compared using Fisher’s exact test. The AWS results were compared to a standardized reference sample of 22,000 workers from a variety of occupations.

RESULTS

33 faculty members participated in the study, out of 40 potential faculty present at the onset of the study. Of these, 16 participated prior to March 2020 (“pre-COVID”) and 17 participated after March 2020 (“COVID-era”). Twenty-four of the enrolled participants completed the MBI and AWS on-line. Of those 24, 13 were categorized as “Engaged,” characterized by exhibiting low Emotional Exhaustion, low Depersonalization and high Personal Accomplishment. Four faculty members

demonstrated isolated low Personal Accomplishment scores, 1 demonstrated isolated Emotional Exhaustion, and 1 demonstrated isolated Depersonalization. Five faculty members, or 21% of those submitting surveys, were categorized as exhibiting Burnout, as defined by registering concerning scores on ratings of Emotional Exhaustion and Depersonalization. For the Areas of Worklife Survey, which measures Workload, Control, Reward, Community, Fairness and Values, faculty means were better than the population average for every area with the exception of Workload (see **Figure 1**).

In the qualitative analysis of all comments, the emergent domains, with comments categorized as positive, negative or neutral, are exhibited in **Table 1**. Table 1 also delineates those comment totals by Pre-COVID, COVID-era, and Total. **Table 2** shows the differences in the percentage of "positive" comments by domain, comparing pre-COVID interviews to those during the pandemic. The most common positive drivers of wellness included positive perceptions of departmental leadership, the experience of working together with colleagues, learners and other teammates, and a sense of self-worth linked to the work of this profession. The most common negative drivers of wellness were psychological stress, balancing family responsibilities with work, a negative perception of non-departmental administration and certain aspects of the clinical work environment. These themes, overall, appeared to be similar in both time periods. There was a statistically significant increase in positive comments related to "patient care" during the COVID-era as opposed to pre-COVID ($p = 0.02$). **Table 3** contains example quotes to illustrate key themes.

DISCUSSION

Our qualitative analysis revealed positive wellness drivers that were largely relational, including relationships with departmental leaders, colleagues, teammates and a sense of teamwork in caring for patients. Negative wellness drivers included those typically found in wellness studies, including psychological stress inherent to work as an emergency physician, balancing family responsibilities with work duties, and negative perceptions of the priorities of non-departmental administration. In comparing interviews before and during COVID, results were largely similar. This is not to say that the pandemic did not affect the wellness of individuals in this faculty group; rather, it appears that the stressful shock of the pandemic did not fundamentally alter the underlying drivers of professional fulfillment and burnout. There was a statistically significant increase in positive comments related to patient care during the COVID-era as compared to prior. The reasons for and practical significance of this finding are unclear. It may be due to an increase in patient appreciation for those on the "front-lines," or possibly physicians approached patient care with a greater sense of self-purpose during a globally venerated healthcare effort (as has been observed in previous investigations) [15]. There are certainly a host of other reasons, and this observation may or may not be a transitory finding.

A multitude of intrinsic and extrinsic factors influence physicians' professional satisfaction and personal wellness. Our findings are consistent with prior analyses which have cited strong associations between physician satisfaction and professional development opportunities, team dynamics, and group

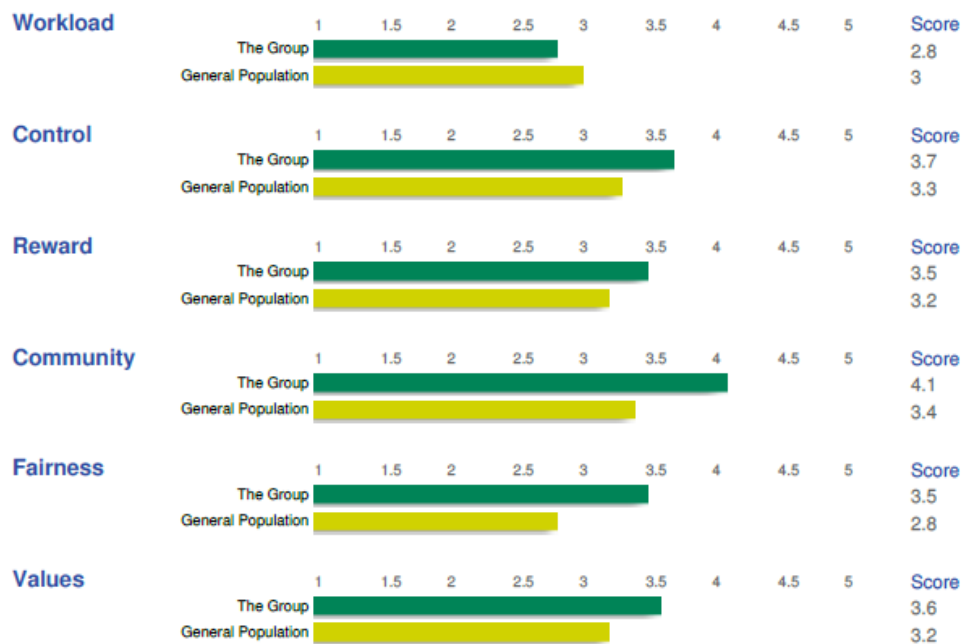


Figure 1: Areas of Worklife Survey Results. Lower scores indicate mismatch between a worker and their organization – indicating a poor fit between the individual and the job they are asked to do. The Group is our faculty sample, General Population is a sample of 22,000 workers in a variety of occupations.

Table 1: Domain Frequency by Period

Domain	Pre-COVID N=404			COVID-era N=359			Total N=763		
	Negative n (%)	Neutral n (%)	Positive n (%)	Negative n (%)	Neutral n (%)	Positive n (%)	Negative n (%)	Neutral n (%)	Positive n (%)
Clinical Operations	10 (76.9)	2 (15.4)	1 (7.7)	11 (61.1)	6 (33.3)	1 (5.6)	21 (67.7)	8 (25.8)	2 (6.5)
Clinical Team	1 (4.4)	2 (8.7)	20 (87.0)	3 (15.8)	2 (10.5)	14 (73.7)	4 (9.5)	4 (9.5)	34 (81.0)
Colleagues	9 (24.3)	4 (10.8)	24 (64.9)	1 (5.9)	6 (35.3)	10 (58.8)	10 (18.5)	10 (18.5)	34 (63.0)
Communication	2 (28.6)	4 (57.1)	1 (14.3)	0 (0)	0 (0)	0 (0)	2 (28.6)	4 (57.1)	1 (14.3)
Consultants	9 (81.8)	0 (0)	2 (18.2)	4 (100)	0 (0)	0 (0)	13 (86.7)	0 (0)	2 (13.3)
Department Leadership	11 (21.6)	4 (7.8)	36 (70.6)	11 (19.6)	13 (23.2)	32 (57.1)	22 (20.6)	17 (15.9)	68 (63.6)
Education Activities	5 (26.3)	4 (21.1)	10 (52.6)	0 (0)	2 (50.0)	2 (50.0)	5 (21.7)	6 (26.1)	12 (52.2)
Equity	0 (0)	1 (100)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (100)	0 (0)
Family Responsibilities	16 (50.0)	9 (28.1)	7 (21.9)	20 (76.9)	2 (7.7)	4 (14.4)	36 (62.1)	11 (19.0)	11 (19.0)
Informatics	2 (66.7)	1 (33.3)	0 (0)	0 (0)	0 (0)	0 (0)	2 (66.7)	1 (33.3)	1 (33.3)
Institutional Administration	21 (100)	0 (0)	0 (0)	18 (85.7)	3 (14.3)	0 (0)	39 (92.9)	3 (7.1)	0 (0)
Job Support	7 (38.9)	7 (38.9)	4 (22.2)	6 (35.3)	10 (58.8)	1 (5.9)	13 (37.1)	17 (48.6)	5 (14.3)
Patient-Care	15 (71.4)	5 (23.8)	1 (4.8)	13 (61.9)	0 (0)	8 (38.1)	28 (66.7)	5 (11.9)	9 (21.4)
Physical Space	13 (86.7)	2 (13.3)	0 (0)	12 (70.6)	5 (29.4)	0 (0)	25 (78.1)	7 (21.9)	0 (0)
Productivity	2 (33.3)	0 (0)	4 (66.7)	3 (100)	0 (0)	0 (0)	5 (55.6)	0 (0)	4 (44.4)
Promotion	6 (54.6)	1 (9.1)	4 (36.4)	7 (100)	0 (0)	0 (0)	13 (72.2)	1 (5.6)	4 (22.2)
Psychological Stress	23 (79.3)	2 (2.7)	4 (2.5)	27 (71.1)	7 (18.4)	4 (10.5)	50 (74.6)	9 (13.4)	8 (11.9)
Research Activities	5 (38.5)	1 (1.4)	7 (53.9)	0 (0)	3 (60.0)	2 (40.0)	5 (27.8)	4 (22.2)	9 (50.0)
Self-Care	7 (22.6)	15 (48.4)	9 (29.0)	4 (26.7)	5 (33.3)	6 (40.0)	11 (23.9)	20 (43.5)	15 (32.6)
Self Determination	1 (33.3)	1 (33.3)	1 (33.3)	1 (16.7)	2 (33.3)	3 (50.0)	2 (22.2)	3 (33.3)	4 (44.4)
Self-Worth	2 (7.4)	9 (33.3)	16 (59.3)	3 (7.3)	8 (19.5)	30 (73.2)	5 (7.4)	17 (25.0)	46 (67.7)
Social Life	0 (0)	0 (0)	0 (0)	2 (50.0)	0 (0)	2 (50.0)	2 (50.0)	0 (0)	2 (50.0)
Trainees	1 (9.1)	0 (0)	10 (6.2)	2 (10.0)	0 (0)	18 (90.0)	3 (9.7)	0 (0)	28 (90.3)

Table 2: Absolute Differences in Percent of Positive Themes Among Domains Between Pre-COVID vs. COVID Eras

Domain	Positive Evaluation Pre-COVID	Positive Evaluation COVID-era	Absolute Difference in Percent (95%CL)	p-value
Clinical Operations	7.7% (1/13)	5.6% (1/18)	-2.1% (-20.1-15.8%)	1.0
Clinical Team	87.0% (20/23)	73.7% (14/19)	-13.3% (-37.4-10.8%)	0.43
Colleagues	64.9% (24/37)	58.8% (10/17)	-6.0% (-34.0-22.0%)	0.76
Communication	14.3% (1/7)	NA	NA	NA
Consultants	18.2% (2/11)	0% (0/4)	-18.2% (-40.1-4.6%)	1.0
Department Leadership	70.6% (36/51)	57.1% (32/56)	-13.5% (-31.5-4.6%)	0.16
Education Activities	52.6% (10/19)	50.0% (2/4)	-2.6% (-56.5-51.3%)	1.0
Equity	0% (0/1)	NA	NA	NA
Family Responsibilities	21.9% (7/32)	15.4% (4/26)	-6.5% (-26.4-13.5%)	0.74
Informatics	0% (0/3)	NA	NA	NA
Institutional Administration	0% (0/21)	0% (0/21)	NA	NA
Job Support	22.2% (4/18)	5.9% (1/17)	-16.3% (-38.6-5.9%)	0.34
Patient Care	4.8% (1/21)	38.1% (8/21)	33.3% (10.7-56.0%)	0.02
Physical Space	0% (0/15)	0% (0/17)	NA	NA
Productivity	66.7% (4/6)	0% (0/3)	NA	0.17
Promotion	36.4% (4/11)	0% (0/7)	NA	0.12
Psychological Stress	13.8% (4/29)	10.5% (4/38)	-3.3% (-19.2-12.6%)	0.72
Research Activities	53.9% (7/13)	40.0% (2/5)	-13.9% (-64.6-36.9%)	1.0
Self-Care	29.0% (9/31)	40.0% (6/15)	11.0% (-18.5-40.5%)	0.51
Self Determination	33.3% (1/3)	50.0% (3/6)	16.7% (-50.0-83.4%)	0.48
Self-Worth	59.3% (16/27)	73.2% (30/41)	13.9% (-9.1-36.9%)	0.29
Social Life	NA	50.0% (2/4)	NA	NA
Trainees	90.9% (10/11)	90.0% (18/20)	-0.9% (-22.4-20.6%)	1.0

leadership [16]. We also identified intrinsic elements (e.g., complexity and demands of the specialty) and contextual factors (e.g., work environment) affecting wellness which are similar to prior findings [8]. Still, many of these relationship-oriented factors are underrepresented in discussions and studies around wellness and burnout. Our findings demonstrating more positive comments related to departmental administration (as opposed to that of the larger institution) seem in line with previous investigations showing generally higher trust in local leaders as opposed to those at incrementally higher levels of leadership [17, 18].

The COVID-19 pandemic has sparked renewed focus on wellness among U.S. physicians and healthcare providers. National and international healthcare crises place additional strain on healthcare providers, especially “frontline” workers. This has been seen in previous pandemics and there is voluminous evidence of personal impacts felt during COVID-19 among emergency physicians and other “frontline” healthcare workers [19, 20, 21, 22]. Our results suggest that although the pandemic crisis amplified wellness concerns among emergency physicians, the actual drivers of wellness (and likely burnout) seem to be similar before

and during the crisis. Our study revealed a persistence among wellness domains before and during the pandemic era. Some elements of the hospital and academic work environment have a persistent negative affect on wellness. However, relationships with people, transparent leadership, and self-worth linked to clinical work all maintained strongly positive influences.

Our results here may point toward some positive contributors to wellness that are worth emphasizing for academic EM faculty. Our investigation revealed a preponderance of positive elements that were based on interpersonal interactions and relationships. Working as a team, interacting with learners, relying on trusted colleagues, were all elements that interviewees associated with positive wellness contributions. Finding ways to build community and emphasizing those areas of our work may help build resiliency and positive wellness among academic faculty. We also observed a resounding commonality in the value of transparent and trusted leadership. Some of the most frequently cited negative aspects of our work included the inherently stressful nature of EM work and competing institutional priorities—which may prove more difficult to address.

Future studies are needed to better characterize the role interpersonal relationships and relational work may play in personal and professional fulfillment among EM faculty. It is perhaps not surprising that transparent leadership and personal pride in helping patients would contribute to wellness among this group. Similarly, the negative drivers identified in our interviews have been previously explored, but demand continued evaluation. The clinical environment, and the constant state of change seen

Table 3: Domains with Representative Comments

Domain	Example Comments
Productivity	<i>"Added pressure based on performance metrics," "Getting papers to the point of publication is exciting to me"</i>
Psychological Stress	<i>"Wellness' as a topic feels like it puts the onus on us to fix problems that are system-wide," "Felt like we were 'pariahs' at first with COVID, because of work exposure"</i>
Self-Care	<i>"I hate 7-3s, having to get up early," "I've thought a lot about what we could do to help wellness - I am intrigued by interventions to keep people from taking work home"</i>
Self-Determination	<i>"If we feel like the goalposts might change in the future, it causes concern that your work could be taken away," "We have independent leeway to pursue interest to whatever 'sweat equity' we want"</i>
Self-Worth	<i>"It's gratifying to see our work change practice around the country"</i>
Social Life	<i>"COVID affected time with friends," "I have friendships all over the country and world because of my work in the field"</i>
Clinical Team	<i>"I love the undifferentiated aspect of our work - a puzzle, that we solve as a team," "A bad interaction with a coworker can have a negative effect"</i>
Colleagues	<i>"Very few people leave this department because it is a remarkably supportive place for an academic career," "I enjoy socializing with other faculty and staff outside the workplace"</i>
Communication	<i>"Sorting out how people feel about things and discussing them is important and I am glad we are doing this," "We don't often hear about decisions until after they're made, getting input earlier may improve decisions"</i>
Consultants	<i>"Other services should be holding themselves accountable, but they do not"</i>
Family Responsibilities	<i>"We haven't seen my parents in about a year," "I'm working nights or missing dinner ... working weekends"</i>
Patient Care	<i>"I get gratification from seeing our patients get better, making a difference in their lives"</i>
Trainees	<i>"Working with students, connecting with them and seeing them grow is a positive wellness factor," "I feel lucky to have chosen the right specialty and work with fantastic residents"</i>
Clinical Operations	<i>"Boarders affect our ability to educate," ""There's just so much to do on nearly all shifts, including morning shifts now. This may have benefits financially but a detractor to wellness"</i>
Department Leadership	<i>"I feel the overall governance does not contribute to my overall stress," "(Department) Administrative leadership looks out for everyone's interest"</i>
Education Activities	<i>"We have a positive education environment," "I see opportunity for conferences to be more interactive - more resident led"</i>
Equity	<i>"Increase women faculty and diversity in the department"</i>
Informatics	<i>"The obligation to sit in front of a #\$\$@! computer is killing me as a physician"</i>
Institutional Administration	<i>"Pressure to do what the administration wants done," "There are a lot of ways about how the hospital functions that limit us"</i>
Job Support	<i>"There - within this department - isn't a whole lot of coming alongside other people - it's mostly left to being a self-starter"</i>
Physical Space	<i>"We could do a better job keeping (our space) clean"</i>
Promotion	<i>"I feel stuck in trying to come up with something new that I don't have ideas for"</i>
Research Activities	<i>"Answering research questions is what drives me - I love it," "We don't have the research structure in place (for X clinical area), including resources and mentorship"</i>

in our specialty, will require perpetual re-evaluation to identify ways for optimization. Identification of emerging environmental factors that contribute to fulfillment (as well as burnout) are paramount in bolstering EM physician wellness.

LIMITATIONS

As is the case with all qualitative research, the study authors bring their own biases and perspectives to this research. Overall, we employed a constructivist approach to knowledge generation. This is fundamentally an article about the experience of being an academic emergency physician, written by academic emergency physicians, located in our own department. This may be both a limitation and a strength: we cannot be entirely “unbiased,” and also, we have deep knowledge and experience of the elements being described. Regarding burnout in our own practice setting, we recognize that many unaddressed organizational factors have a significant impact on our work environment and emotional stress. Some of these may be particular to one institution and thus not generalizable to all. Like most qualitative, interview-based studies, we view our results here as hypothesis-generating rather than dispositive. Further analysis with broader samples and focused inquiry would be needed to better understand the relative roles of these wellness contributors.

Additionally, the frequency of certain responses was likely influenced by the study questions posed by interviewers. Inquiries around certain domains were made specifically (e.g., departmental governance), while other topics arose organically during open-ended questioning (e.g., financial remuneration). In deciding to separate the process of “abstracting” the important points from the interviews (identifying themes) we balanced the need for confidentiality among a group of faculty members with a desire to fully capture the meaning of the qualitative data.

This was a single-site research endeavor examining a single academic faculty group. The work landscapes and the factors that influence wellness may vary among academic EM faculty and community-based physicians, and thus broad generalization of our findings is limited. Additionally, our study was not specifically designed to assess wellness during or after a global medical crisis. Burnout levels, as measured by the MBI, among our study cohort were lower than reported national averages for EM physicians. This fact could be seen as a limitation, as it may mean that our faculty group is not overall representative of EM faculty at large. It is also possible, however, that the low levels of burn-out measured here are indicative of healthy environmental factors that merit further exploration. We were not able to measure changes in burnout scores before and during the pandemic for comparison.

CONCLUSION

Among one group of academic emergency physicians, the most common positive drivers of wellness included positive perceptions of departmental leadership, the experience of working together with colleagues, learners and other teammates, and a sense of self-worth linked to the work of this profession. The most common negative drivers of wellness were psychological stress, balancing family responsibilities with work, a negative

perception of non-departmental administration, and certain aspects of the clinical work environment. The themes were very similar prior to the COVID-19 pandemic and in the midst of it. This group displayed a lower-than-average rate of burnout and better-than-average wellness measures overall—which may limit the generalizability of these findings or may point toward certain aspects worth examining further. These results may suggest strategies to emphasize “people-oriented” aspects of the profession in order to improve the culture of wellness within an EM academic department.

Funding Source: The author(s) received no specific funding for this work.

Conflicts of Interest: The author(s) have no conflict of interest to declare for this work.

REFERENCES

1. West CP, Dyrbye LN, Shanafelt TD. Physician burnout: contributors, consequences and solutions. *J Intern Med.* 2018 Jun;283(6):516–29. <https://doi.org/10.1111/joim.12752> PMID:29505159
2. Hodkinson A, Zhou A, Johnson J, Geraghty K, Riley R, Zhou A, et al. Associations of physician burnout with career engagement and quality of patient care: systematic review and meta-analysis. *BMJ.* 2022 Sep;378:e070442. <https://doi.org/10.1136/bmj-2022-070442> PMID:36104064
3. Shanafelt TD, West CP, Sinsky C, Trockel M, Tutty M, Wang H, et al. Changes in burnout and satisfaction with work-life integration in physicians and the general US working population between 2011 and 2020. *Mayo Clin Proc.* 2022 Mar;97(3):491–506. <https://doi.org/10.1016/j.mayocp.2021.11.021> PMID:35246286
4. West CP, Dyrbye LN, Erwin PJ, Shanafelt TD. Interventions to prevent and reduce physician burnout: a systematic review and meta-analysis. *Lancet.* 2016 Nov;388(10057):2272–81. [https://doi.org/10.1016/S0140-6736\(16\)31279-X](https://doi.org/10.1016/S0140-6736(16)31279-X) PMID:27692469
5. Panagioti M, Panagopoulou E, Bower P, Lewith G, Kontopantelis E, Chew-Graham C, et al. Controlled Interventions to Reduce Burnout in Physicians: A Systematic Review and Meta-analysis. *JAMA Intern Med.* 2017 Feb;177(2):195–205. <https://doi.org/10.1001/jamainternmed.2016.7674> PMID:27918798
6. Sinsky CA, Daugherty Biddison L, Mallick A, et al. Organizational Evidence-Based and Promising Practices for Improving Clinician Well-Being. *NAM Perspectives, Discussion Paper National Academy of Medicine, Washington D.C.*; 2020.
7. Buhlman N and Lee T. When Patient Experience and Employee Engagement Both Improve, Hospitals' Ratings and Profits Climb. *Harvard Business Review, Business Communication.* May 8, 2019.
8. Lu DW, Lee J, Alvarez A, Sakamoto JT, Bird SB, Sundaram V, et al. Drivers of professional fulfillment and burnout among emergency medicine faculty: A national wellness survey by the Society for Academic Emergency Medicine.

- Acad Emerg Med. 2022 Aug;29(8):987–98. <https://doi.org/10.1111/acem.14487> PMID:35304931
9. Fitzpatrick K, Patterson R, Morley K, Stoltzfus J, Stanke-wicz H. Physician Wellness During a Pandemic. *West J Emerg Med*. 2020 Sep;21(6):83–7. <https://doi.org/10.5811/westjem.2020.7.48472> PMID:33052816
 10. Hennein R, Lowe S. A hybrid inductive-abductive analysis of health workers' experiences and wellbeing during the COVID-19 pandemic in the United States. *PLoS One*. 2020 Oct;15(10):e0240646. <https://doi.org/10.1371/journal.pone.0240646> PMID:33104711
 11. Rafferty JP, Lemkau JP, Purdy RR, Rudisill JR. Validity of the Maslach Burnout Inventory for family practice physicians. *J Clin Psychol*. 1986 May;42(3):488–92. [https://doi.org/10.1002/1097-4679\(198605\)42:3<488::AID-JCLP2270420315>3.0.CO;2-S](https://doi.org/10.1002/1097-4679(198605)42:3<488::AID-JCLP2270420315>3.0.CO;2-S) PMID:3711351
 12. Gascón S, Leiter MP, Stright N, Santed MA, Montero-Marín J, Andrés E, et al. A factor confirmation and convergent validity of the “areas of worklife scale” (AWS) to Spanish translation. *Health Qual Life Outcomes*. 2013 Apr;11(1):63. <https://doi.org/10.1186/1477-7525-11-63> PMID:23596987
 13. Maslach Burnout Inventory Human Services Survey for Medical Personnel (MBI) - assessments, tests: Mind garden. Mind Garden n.d. <https://www.mindgarden.com/117-maslach-burnout-inventory-mbi> (accessed July 19, 2018).
 14. Areas of Worklife Survey (AWS) - assessments, tests: Mind garden. Mind Garden n.d. <https://www.mindgarden.com/274-areas-of-worklife-survey> (accessed July 19, 2018).
 15. Panzeri A, Rossi Ferrario S, Cerutti P. Psychological Differences Among Healthcare Workers of a Rehabilitation Institute During the COVID-19 Pandemic: A Two-Step Study. *Front Psychol*. 2021 Mar;12:636129. <https://doi.org/10.3389/fpsyg.2021.636129> PMID:33868105
 16. Domagała A, Bała MM, Storman D, Peña-Sánchez JN, Świerz MJ, Kaczmarczyk M, et al. Factors associated with satisfaction of hospital physicians: a systematic review on European data. *Int J Environ Res Public Health*. 2018 Nov;15(11):2546. <https://doi.org/10.3390/ijerph15112546> PMID:30428606
 17. Brenan M. Americans' trust in government remains low. Gallup. Published Sept 30, 2021. Accessed Nov 2, 2022. <https://news.gallup.com/poll/355124/americans-trust-government-remains-low.aspx>
 18. Armstrong K, Rose A, Peters N, Long JA, McMurphy S, Shea JA. Distrust of the health care system and self-reported health in the United States. *J Gen Intern Med*. 2006 Apr;21(4):292–7. <https://doi.org/10.1111/j.1525-1497.2006.00396.x> PMID:16686803
 19. Maunder R, Hunter J, Vincent L, Bennett J, Peladeau N, Leszcz M, et al. The immediate psychological and occupational impact of the 2003 SARS outbreak in a teaching hospital. *CMAJ*. 2003 May;168(10):1245–51. PMID:12743065
 20. Sasangohar F, Jones SL, Masud FN, Vahidy FS, Kash BA. Provider Burnout and Fatigue During the COVID-19 Pandemic: Lessons Learned From a High-Volume Intensive Care Unit. *Anesth Analg*. 2020 Jul;131(1):106–11. <https://doi.org/10.1213/ANE.0000000000004866> PMID:32282389
 21. Carmassi C, Foghi C, Dell'Oste V, Cordone A, Berteloni CA, Bui E, et al. PTSD symptoms in healthcare workers facing the three coronavirus outbreaks: what can we expect after the COVID-19 pandemic. *Psychiatry Res*. 2020 Oct;292:113312. <https://doi.org/10.1016/j.psychres.2020.113312> PMID:32717711
 22. Jianbo L, Simeng M, Wang Y, et al. Factors Associated With Mental Health Outcomes Among Health Care Workers Exposed to Coronavirus Disease 2019. *JAMA Netw Open* 2020; 3(3): e203976, p 1-12.

Appendix A

Interview Script

Study ID:		Interviewer:	
Date/Time:		Audio File ID:	
Consented?	Y / N *		

**Subjects must be consented prior to beginning the interview*

Thank you for participating in our Wellness Study. The goal of this interview is to gather your thoughts and feelings about how your work affects your sense of wellness. The conversation is recorded so that we can review it later for data analysis. The only people who will hear your interview are the interviewer and one other member of the study committee. Your interview is anonymous but your voice may be recognized by those persons. Your participation is voluntary and you may opt out at any time. Please respond to the questions honestly. If you are unsure about a question the interviewer can offer some additional information about it.

What aspects of the clinical work environment have a positive effect or negative effect on your wellness? How so?

Prompt (if needed): The clinical work environment refers to the place, people, and technology we interact with as we deliver direct patient care.

What aspects of the Administration, Education, and/or Research environment have a positive or negative effect on your wellness? How so?

Prompt (if needed): The Administrative, Education, and/or Research environment refers to the place, people, and technology we interact with as we perform tasks related to running an Emergency Department or conducting our academic work.

How does your work affect your Family/Social/Personal life outside the workplace?

Prompt (if needed): How does your job positively or negatively impact the other activities that you enjoy outside of work?

What aspects of our Departmental governance have a positive or negative effect on your wellness? How So?

Prompt (if needed): How does the manner in which important decisions are made in our department affect your sense of wellbeing?

What is most important to you? How can the department support what is most important to you?

What are your top two immediate suggestions for change to support wellness?

Is there anything else we should know about how your job affects your wellness?