Organization-level factors associated with burnout: Guided discussions with micropolitan public health workers during COVID-19

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Structured Abstract

Objective: To understand how micropolitan PHWs experienced burnout antecedents during the COVID-19 pandemic.

Methods: We conducted in-depth guided discussions with 34 representatives from 16 micropolitan public health departments using semi-structured, open-ended questions about departments' experiences during the COVID-19 pandemic. We coded discussion transcripts to develop themes according to the Six Areas of Worklife model.

Results: PHWs described antecedents of burnout that stemmed from organizational and external forces, most notably within the workload, control, reward, and values dimensions of the Six Areas of Worklife model, as well as instances of workplace violence.

Conclusions: Our findings support organization-level approaches to reducing and preventing burnout in the micropolitan public health workforce. We discuss addressing specific dimensions of the Six Areas of Worklife model when designing burnout solutions for this essential workforce.

Keywords

burnout; public health worker; micropolitan; COVID-19; qualitative

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Introduction

Burnout is a state of psychological, emotional, and physical exhaustion resulting from chronic job-related stress.[1] It hinders job performance, increases turnover rates, and leads to poor delivery of programs and services.[1,2,3] Recent research pertaining to burnout in health professions has been primarily focused on health care providers,[4] often overlooking public health workers (PHWs) who have been critical in the COVID-19 pandemic response. Workplace conditions, drastically altered by the sudden increase in demands and responsibilities, placed immense stress on PHWs, putting them at increased risk of burnout. [5,6,7] Work-life imbalance, political scapegoating, and threats of violence fueled resignations and high turnover rates among PHWs,[7,8] which in turn exacerbated burnout symptoms for those who remained as well as the development of other mental health concerns.[9]

Research on burnout has tended to examine symptoms experienced by individuals, often categorized by three indicators: emotional exhaustion, professional cynicism, and low perceived efficacy;[10] however, Leiter and Maslach recognized the need to shift the focus toward organizational accountability for burnout. They suggest organizations and workplace environments are responsible for six antecedents of burnout, coined the "Six Areas of Worklife": 1) workload— an overwhelming number of tasks for the given amount of time and/or job demands exceeding one's knowledge and/or abilities; 2) lack of control —conflicting demands of involved parties and little to no autonomy; 3) insufficient recognition or reward for one's work, which can also be experienced from no observable progress; 4) conflict among coworkers and/or lack of mutual support; 5) lack of fairness; and 6) incompatibilities between personal values and organizational or workplace-related values.[11] An additional environmental factor shown to contribute to burnout risk that is not represented by the Six Areas of Worklife is exposure to workplace violence, both physical (e.g., kicking, pushing) and psychological (e.g., verbal abuse, threats).[12] Organization-directed interventions (e.g., improved electronic systems, work hour limits, and leadership trainings) have been found to be just as successful as individually focused solutions (e.g., mindfulness and stress management programs) at reducing burnout risk [13,14], without placing undue burden on the individual. In fact, the entire field of burnout prevention is moving to an occupational focus, including a revised definition of burnout in the International Classification of Diseases as an "occupational phenomenon, *not* a medical condition."[15]

Region-specific occupational research can identify and account for unique contexts and disproportionate risk of burnout. Relevant to our study, COVID-19 mitigation strategies and leadership varied among states,[16] and rural residents throughout the nation exhibited less intention to get vaccinated and had lower vaccination rates for COVID-19 than their urban counterparts.[17] Micropolitan public health departments, in particular, experience unique opportunities and challenges, as micropolitan demographics and economies have shifted.[18] These largely rural areas, made up of 10,000 to 50,000 residents who share a common "core" area,[19] have seen an influx of Black, Asian, Latinx, and immigrant populations[20] as well as faster increases in income inequality compared to less populated areas.[21] Residents report practicing fewer health-related behaviors (e.g., nonsmoking, leisure time physical activity) than metropolitan residents,[22] and they experience disproportionate death rates for

heart disease and chronic lower respiratory disease,[23] as well as COVID-19.[24] To address these heightened health concerns, micropolitan public health departments must provide a wide range of services with less funding and fewer staff than their urban counterparts,[25,26] which may place them at disproportionate risk of burnout. To date, research on PHW burnout has not narrowed in scope to examine the specific experiences of micropolitan and/or rural PHWs.

We sought to understand the experiences of micropolitan PHWs during COVID-19 to contribute to the literature on burnout in an understudied, overburdened, and underfunded workforce. Using an organizational focus to analyze our data contributes to an efficacious model for mitigating burnout in public health departments and organizations that hold capacity for organizational change, if allotted the resources. An organizational approach guides how burnout risk is defined and identified among PHW, as well as how solutions can hold organizations, environments, and policies responsible without further burdening individual PHWs. Therefore, our research questions were:

1. How do micropolitan PHWs describe organizational antecedents of burnout they experienced during the COVID-19 pandemic?

2. How has the COVID-19 pandemic altered the working environments of micropolitan PHWs?

Methods

We conducted 16 in-depth guided discussions with 34 representatives from public health departments across the state as formative research for a Centers for Disease Control and Prevention-funded project to increase vaccine confidence and uptake in micropolitan communities. To recruit participants, we contacted public health directors in 17 micropolitan communities via email. Sixteen directors agreed to take part, with some inviting additional colleagues to join (for a total of 34 participants). The University of Iowa IRB determined this project not to be human subjects research. We offered each participant a $20 gift card as compensation.

In June and July of 2021, video-recorded guided discussions were conducted by 10 researchers, often with two or more researchers present and engaged in each discussion. All discussions occurred on Zoom, and each participant gave verbal consent to be recorded and have their speech transcribed by a third-party service. The discussion guide consisted of semi-structured, open-ended questions about health departments' experiences during the COVID-19 pandemic—successes, challenges, and opportunities for future efforts.

The original discussion guide did not explicitly ask about burnout and its risk factors; however, a comprehensive reading of the transcripts, including sentiments expressed frequently without prompt, led us to investigate indicators of burnout risk that emerged from the data. Secondary analysis can generate new knowledge without further burdening respondents,[27] making this form of analysis fitting for the context of this study, given the heightened stress and workload experienced by PHWs during the COVID-19 pandemic response.

Four members of the research team developed a codebook using a hybrid inductive-deductive approach that featured the principles established in existing burnout research (including the Six Areas of Worklife) for deductive analysis while allowing for other sentiments and phenomena that emerged from the discussions (such as workplace violence) to be represented by inductive coding.[28] Two transcripts were independently coded by 5 research team members who subsequently discussed each code's definition and similarities and discrepancies in code application. The codebook was then refined, and the remaining transcripts divided and coded. Transcript excerpts were organized, coded, and analyzed using Microsoft Excel.

Results

PHWs from public health departments in 16 micropolitan communities represented the professional roles of Administrator, Manager, Nurse, Nurse Practitioner, Executive Director, Director, Program Manager, and Vice President. Guided discussions with these individuals consistently focused on four of the Six Areas of Worklife that contribute to burnout: workload, control, reward, and values. Instances of workplace violence were also described.

Workload

PHWs frequently described job demands that exceeded the limits of their and their staffs' time and energy and/or fell outside of the scope of their capabilities. Staff turnover compounded this problem. One respondent described how the effects of employee shortages rippled through the community: "We are offering our vaccine just on Thursday afternoons from 1 to 3, because that's when we have staff available. Is that ideal for the whole community? Maybe not" (Micropolitan 4).

Allocating time to improve PHWs' work-life balance proved important to several respondents but maintaining a certain level of staff was still a priority. As one put it, "We just have to make sure that we've got the staffing for the clinics each week, because, like I said, we've kind of also focused on that work-life balance right now and trying to get people some vacation time so we can regenerate" (Micropolitan 5). Sacrifice was inevitable, as expressed by another respondent: "I'm just really fortunate to have the team of professionals here at the agency that have just basically given up their lives over the last year and a half to protect this community and get out there and get people vaccinated. Our staff and volunteers worked through snowstorms, sleet storms, heat indexes, rainstorms, lightning storms—it was crazy" (Micropolitan 10).

Throughout the pandemic, job demands fell outside of PHWs' expertise, requiring many to learn new skills to effectively respond to the ever-changing challenges. One said, "I've learned Canva. I've learned how to do social media. I've learned how to be the marketing person, because we're such a small department and that's not my area of expertise, but I've learned. Don't get me wrong, I think I'm adequate at it. I wear lots of different hats, but those are really hard things" (Micropolitan 16). Another said, "We don't have a Twitter account or an Instagram account here. TikTok, that would have to be somebody much younger than me to have to do… we are strictly Facebook right now" (Micropolitan 10). PHWs also frequently noted their lack of non-English communication skills: "We've had a

fair amount of Hispanic population at our mass clinics where we needed translators, and we were getting the Google translator out on our phone to talk to them, and it worked. Was it the most ideal? Probably not" (Micropolitan 13).

PHWs were challenged by the need to balance their other professional responsibilities while continuing to support COVID-19 mitigation in their communities: "If we're supposed to do more clinics or we're supposed to do other things with COVID-19, where does it all fit in, and how does our regular stuff fit in?" (Micropolitan 5). Even when the acute stress of early mass vaccination efforts had passed, PHWs had long-term work to be done in response to the pandemic:

> "I'm anticipating 6 to 12 months of writing after-action reports and trying to develop some kind of report that will be useful during the next pandemic... We've got a lot of community partners we need to reach out to. So between flu, between catching up on our other work, between looking at a third dose, and then still responding to the different variants that might be coming on, there's just so much work that still needs to be done" (Micropolitan 7).

Control

Workers feel control when they experience autonomy and coherent demands and directives. Micropolitan PHWs worked through the pandemic with highly conflicting demands while lacking the basic resources to accomplish their goals. Respondents described inconsistent and incoherent directives from government entities as a significant challenge to guiding their communities through the pandemic, as one noted: "I think there hasn't been a unified message in [the state]. I feel like it starts from the governor... I mean, it's just been such a mess, and it's not easy because the CDC, it's been, there's so many mixed messages, right?" (Micropolitan 12). Another said,

> "...it was frustrating that in all 99 counties, there was a lot that you're on your own for developing your materials, for developing your posters, for all your messaging and then also for how you were doing it. So one county, it was like, 'Okay, if you're over 65 [years of age], we'll make an appointment.' Other started at age 90 this week, down to 85 the next week. And so there's so many inconsistencies and people calling from all over the state to see where they can get an appointment as well" (Micropolitan 4).

Another PHW described how even nuanced guidelines around COVID-19 mitigation seemed contradictory, for example, "...you can go on vacation, but you can only go on vacation [in certain places]. You can't come to school full-time, but you can still go to wrestling practice. I don't know how you can get much closer to somebody other than wrestling" (Micropolitan 1).

Lack of control is often characterized by a "mismatch" in the workplace that workers are unable to influence.[11] When COVID-19 vaccines were first introduced, high demand for vaccines conflicted with the reality of their low supply, generating control-related stress for PHWs. In early 2021, PHWs in these micropolitan communities received demands from "hundreds and hundreds of people" (Micropolitan 4) for vaccination. One described phones

ringing "off the hook for all hours of the day for the first few months of the vaccination campaign" (Micropolitan 2), and another "saw a lot of people from the [name of city] area… and from South Dakota, North Dakota, Minnesota, Wisconsin, because they couldn't find [a COVID-19 vaccine] in their community," while there were "way more people, of course, that wanted the vaccine than we had supply" (Micropolitan 7).

Reward

PHWs illustrated the reward domain through their descriptions of little to no observable progress in vaccination rates. Well into the vaccination effort, one PHW noted meager progress in vaccinations despite time-consuming efforts toward vaccine accessibility: "We have offered different times, actually going different places, having clinics here, and it's still the same results that we aren't getting the numbers like we have in the past" (Micropolitan 1). The result, according to that PHW's colleague, was to shift more responsibility onto community members: "Don't bother having an all-day clinic when you can condense it down into a few hours, because it's just like going to the doctor. If you really need to go and you really need to be seen or get your immunization, then you will find a way to be there at that time" (Micropolitan 1).

Rather than receiving recognition for their efforts (which also falls in the reward domain), PHWs felt their efforts to communicate and educate the public about the COVID-19 vaccine resulted largely in indifference. As one said, "I don't know how many PowerPoints that just go in the garbage. And the Q&As, no one's interested. They've made their decision" (Micropolitan 12). Besides indifference, outreach efforts were also met with backlash: "When they were at the county fair, people were actually kind of nasty. 'I don't need that vaccine. I ain't going there. I'm not vaccinated and I'm proud of it'" (Micropolitan 15). Backlash occurred online as well: "Sometimes on our Facebook page… the comments are they don't want to be the guinea pig there. They don't want anything to do with it" (Micropolitan 10).

Values

Polarization around COVID-19 mitigation efforts complicated PHWs' personal values systems when they worked in community partnerships. For example, collaborations were challenging when business and organizational partners were reluctant to promote the COVID-19 vaccine or spoke out against vaccination. One PHW mentioned churches: "They said, 'It's not that we don't support you. We just feel that it's too controversial at this point'" (Micropolitan 5). Another noted that community partnerships were "very fragile relationships," adding, "[We] don't want to be forcing stuff on them if they don't want to…" (Micropolitan 12).

Despite the strain of value inconsistencies, partnerships did help alleviate workload and buffered feelings of overextension: "We did over 9,000 shots from January to June, and so that was a big lift for our small department. We're hospital-based so we could use hospital staff, which was amazing and a big help" (Micropolitan 12). One PHW described the specific value of a local business partnership: "We have two [meat packing] plants in town… we have pretty much around 30 languages that are primary…and there's a few different

dialects of each of them. [Name of meat packing plant] has interpreters on staff, and they are more than willing, even if we're having an event that they're not involved in, to have their interpreters come out to it, or they were able to translate a lot of our consent and stuff that we use" (Micropolitan 1).

The personal values of some PHWs did not align with strategies pursued by the larger public health field. For example, one PHW took issue with the definition of an essential worker, citing grocery store workers who "have had more contact as frontline workers in a grocery store than half of the teachers, half of the nurses, half of whatever, and they were exempted from the vaccine because they didn't meet criteria" (Micropolitan 1). A few disagreed with the use of incentives by public health to encourage vaccination: "If you have to be incentivized to get a shot, that's not the right reason to get the shot in my opinion" (Micropolitan 6). Some PHWs mentioned directives to discard unused vaccine as difficult for them: "We don't want to waste, but we know we have to…If you have a Moderna and it's got 10 doses, you may waste nine to get [one person] to get the vaccine" (Micropolitan 11)

Workplace violence

PHWs experienced psychological violence (one form of workplace violence) from community members, including verbal abuse and threatening behaviors. One PHW described a protest accompanied by "a whole mass paper campaign with our names on it, my contact information and the CEO, the hospital's contact information, and a whole thing with a skull and crossbones on it" (Micropolitan 2). Another alluded to "a very uncomfortable experience" with an individual who was "very vocal" standing outside of their clinic (Micropolitan 1). Psychological violence came not only from the vaccine resistant; during the initial mass vaccination phase, PHWs received "angry phone calls from people who couldn't get in" to receive a vaccination (Micropolitan 4).

Discussion

Our findings are in line with peer reviewed[3,4,7,9] and gray[29] literature reporting high burnout prevalence in the broad public health workforce during the COVID-19 pandemic. This research includes a quantitative study that found role clarity (control) to be significantly related to burnout[3] and qualitative research that examined the relationship between hiring capacity (workload) and burnout.[7] The purpose of our study was to contribute a micropolitan (and largely rural) perspective to the literature on this topic to understand the unique experiences of micropolitan PHWs during COVID-19.

Related to research question 1, we chose to analyze our data using the Six Areas of Worklife model, which is one of few frameworks devised to inform research and workplace intervention by naming organization and environment-level antecedents of burnout.[11] One of the model's antecedent domains is values, specifically incompatibility between personal and organizational values, which came up frequently in the discussions of community partnerships. Our finding that partnerships protect PHWs against burnout (when they reduce workload) but are also potentially stressful (when partners hold values incompatible with PHWs') is congruent with other studies in social work and teaching workforces. [30,31] In

"Preparing the Public Health Workforce for the Post-COVID-19 Era," the authors argue for the importance of training public health students to partner with various sectors, including "a greater commitment to interprofessional education," [32] a recommendation we support as a strategy requiring institutional accountability.

The control dimension of the Six Areas of Worklife model was also conspicuous in our data. Many PHWs mentioned their frustration with state-level leadership, contradictory guidance, and conflicting demands made by national, state, and local health authorities. Because the home state of these PHWs lacked cohesive COVID-19 mitigation strategies and strong leadership,[16] it is likely that PHWs in this study felt the stress of this dimension more intensely than their counterparts elsewhere. Future research could compare this dimension across states, which could inform tailored burnout solutions and prevention approaches.

Related to research questions 1 and 2, our data demonstrated how the pandemic's added workload exceeded PHWs and their staff's limits and interrupted their opportunities to recover; meanwhile, little to no perceived progress in vaccination rates (reward) occurred despite those efforts. To address burnout risk in the workload and reward domains, hiring more staff and increasing salaries are recommended, with both requiring increased funding.[5,33]

Workplace violence was not included as an antecedent to burnout in Maslach and Leiter's Six Areas of Worklife. Our data, in line with more recent research on this phenomenon, support our decision to include it in our analysis as a burnout risk factor. The verbal violence described by PHWs in this study is reinforced by recent findings that increased numbers of adults believe harassing or threatening public health officials is justified.[34] Workplace violence interventions that include organizational policy changes, such as enhanced security measures and reporting systems, have been shown to decrease rates of workplace violence in healthcare settings, while standalone educational trainings for staff have not.[35]

Among the limitations associated with this study is selection bias, as all PHWs self-selected to participate in this study. Discussions often included more than one individual in subordinate positions to other discussants, which may have resulted in restrained or selective responses. It is also possible that PHWs experienced more stress related to the other two areas of worklife—co-worker conflict and fairness—than they felt free to discuss in a group. Future qualitative studies could explore these topics with PHWs more explicitly, using trauma-informed methods with special attention made to reduce emotional harm for participants.[36] Finally, these results should not be generalized, as the current study occurred in one state among a small sample and specific context.

Conclusions

We sought to understand if and how PHWs in micropolitan communities experienced burnout through guided discussions about working during the COVID-19 pandemic. They described antecedents of burnout, as well as instances of workplace violence, related to organizational and external (rather than personal) factors. These findings support tailored,

organization-level approaches to studying, preventing, and reducing burnout in this essential workforce.

Funding:

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SMART Learning Outcomes

Upon completion of this article, the reader will be able to…

- Name and define each dimension of the Six Areas of Worklife.

- Describe at least three ways the COVID-19 pandemic changed working conditions for public health workers using language that recognizes organization-level and external forces.

- Describe at least two organization-level strategies to mitigate burnout among public health workers.