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A qualitative assessment of dental hygiene educators' COVID-19 related burnout

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Abstract

Purpose: The purpose of this study was to elicit ideas or concerns influencing dental hygiene educators' experiences of personal and professional burnout, burnout working with students, and teaching efficacy in an online/hybrid environment as a result of the COVID-19 pandemic.

Methods: A qualitative, content-analysis study included a convenience sample of dental hygiene educators emails. An invitation to participate in an August 2021 or October 2021 focus group was sent via Qualtrics[xm] with informed consent, and focus groups were held over Zoom. Conversations were audio recorded, transcribed, and de-identified. Consensus on a codebook by two coders achieved an 88% agreement.

Results: Fifty-three were invited to the August 2021 focus groups for a 26% ($n = 14$) response rate, and 116 were invited to the October 2021 focus groups for an 11% ($n = 13$) response rate. Contributing factors to experiences of burnout expressed were: (1) work–life balance ($n = 59$), including (a) overwork, (b) pressure to be available, and (c) lack of boundaries; (2) change ($n = 34$) involving (a) developing new protocols, (b) constant uncertainty, (c) COVID-19 requirements, and (d) new platforms; and (3) negative interactions ($n = 32$) with (a) students and (b) faculty.

Conclusion: A lack of work–life balance from overwork, pressure to be available at all times, no boundaries with students, and an absence of a sense of connection for workplace vitality were contributors to burnout. Work-from-home flexibility, a work environment that supported wellness and mental well-being, and the ability to leave the workplace for periods of time were reported as helpful solutions to combatting burnout.

KEYWORDS
COVID-19, faculty burnout

1 | INTRODUCTION

Workplace burnout is a condition that has long been examined in the literature. Workplace burnout has been defined as a psychological syndrome characterized by exhaustion, cynicism, and feelings of ineffectiveness related to one's work as a result of chronic interpersonal stress[1] and is considered to be a distinct condition from job dissatisfaction and depression.[2] Burnout has been noted to manifest physically, mentally, and emotionally, causing decreased productivity and negatively impacting both personal and patient health outcomes.[3–10] Burnout is particularly associated with helping professions of health care and teaching, where interpersonal demands and institutional challenges are frequently significant drains on resilience.[1] Therefore, efforts to reduce burnout have become essential to health care education through the promotion of job satisfaction and the cultivation of a humanistic work environment to enhance workplace vitality, particularly in the wake of the COVID-19 pandemic.

Much of the current evidence in regard to burnout focuses on the medical and nursing professions, revealing a significant gap in the literature regarding dental hygiene (DH) educator burnout. The literature that does exist tends to focus on DH program directors and administrators. Prior to the pandemic, Suedbeck et al.[11] noted that nearly two-thirds of DH program directors reported moderate to high levels of personal burnout, while half reported experiencing the same levels in workplace burnout. The COVID-19 pandemic introduced new, additional stressors for DH educators. The pivot to online course delivery, increased work overload, challenges with administration, and the constant changing of guidelines and procedures related to COVID-19 lead DH faculty to report significant levels of physical and emotional exhaustion.[9] Not surprisingly, these additional stressors led to an increased incidence of personal and professional burnout and negatively impacted perceptions of teaching efficacy in DH educators.[9]

In light of these findings, the purpose of this qualitative study was to further examine DH educators' perceptions of personal and professional burnout as a result of the COVID-19 pandemic, burnout related to working with students, and their efficacy teaching in an online/hybrid environment through focus groups. Additionally, this evaluation was intended to elicit ideas or concerns that were not represented in previous studies, including factors influencing educators' experiences of burnout, coping strategies, and suggestions for changes in workplace practices and policies.

2 | METHODS AND MATERIALS

This qualitative, content-analysis study was determined to be exempt from oversight by the University of Minnesota (UMN) Institutional Review Board (STUDY00012194). The principal investigators partnered with the University of Michigan (U-M) School of Social Work Program Evaluation Group (PEG) to develop questions and conduct focus group interviews. PEG's expertise in conducting focus groups emphasizes centering equity and prioritizes informants' diversity and lived experiences. Two team members from PEG included an evaluation assistant and an associate with a master's degree in social work (MSW). The U-M and UMN Dentistry Team and PEG Team are female investigators and facilitators of focus group research.

A convenience sample was used to learn more about experiences of burnout and perceptions of teaching efficacy in an online/hybrid environment among DH educators since the COVID-19 pandemic beginning March 2020. The sample population consisted of informants from a previous quantitative study that recruited 314 participants from 152 institutions. From this sample, 182 subjects shared their emails for future contact. A total of 13 participant emails were excluded due to either returned emails ($n = 6$) or non-DH faculty ($n = 7$) for a recruitment total of 169 email addresses. From the 169 email addresses, 33 were randomly selected using R version 4.0.3 for the focus groups by a UMN statistician. The 33 randomly selected informants were then recruited via email two times 1 week apart by a principal investigator and invited to participate in one of three 90 min, virtual focus groups in August 2021 hosted by a moderator from PEG via Zoom. The recruitment email had a formal invitation to participate in a focus group, a Qualtrics[xm] link to the informed consent and a schedule of three dates in August 2021 for the focus group.

From the 33 randomly selected subjects invited via email, a total of $n = 10$ accepted the invitation and $n = 13$ did not respond. An alternate list of 20 randomly selected participant email addresses was utilized to replace informants from the initial list of 33 who did not respond. A total of $n = 6$ accepted the invitation from the alternate list of 20. For the August 2021 focus groups, 16 ($n = 16$) informants consented, and two ($n = 2$) withdrew due to schedule conflicts. Fourteen ($n = 14$) informants received a confirmation email for their focus group session. A reminder email for their scheduled session was sent 2 days prior and the morning of their focus group with a Zoom link to join the session.

The initial goal was that 33 informants (10–11) per focus group in August 2021 were not met. To increase
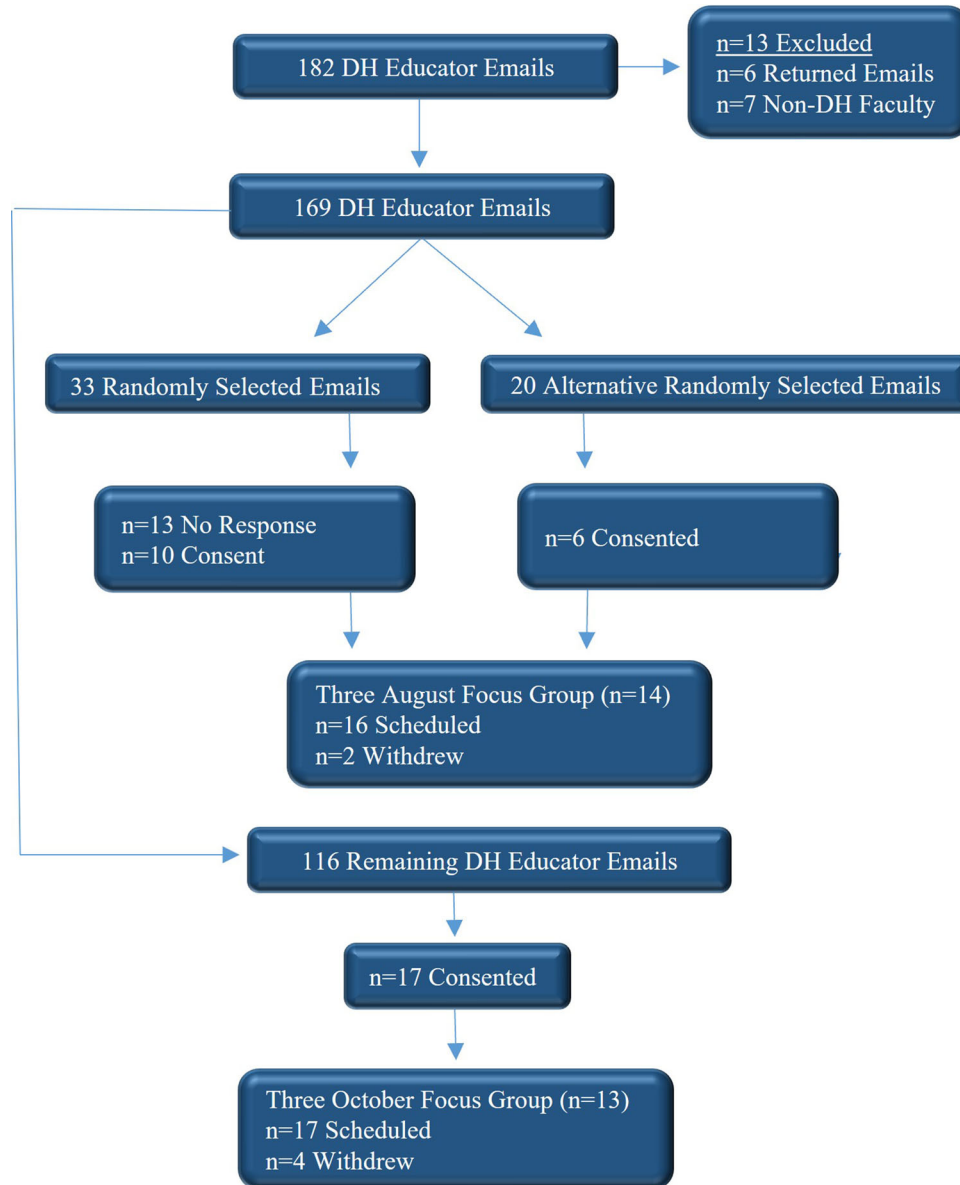
FIGURE 1 August and October focus groups

enrollment, the remaining 116 emails that were provided were invited to participate in focus groups in October 2021. Of the 116 invited, $n = 17$ consented to participation, $n = 2$ withdrew, and $n = 2$ replied to the UMN researcher that they were retiring and did not feel they would add value to the focus groups. The same process occurred to recruit, consent and schedule the October 2021 focus groups as the August 2021 focus groups. Figure 1 provides a flow chart for recruitment, consent, and scheduling for the August and October focus groups. A total of six focus groups were conducted between August 2021 and October 2021 to accommodate educators' schedules. The U-M and UMN investigators were not involved in the focus groups to minimize bias. The focus groups were facilitated by one U-M PEG team member. The operational definitions for

the sub-dimensions of burnout from a previous study were used for consistency. Additionally, operational definitions for "cultivate a humanistic environment" and "workplace vitality" were provided to the informants during the focus groups. Conversations were audio recorded after receiving verbal consent from all informants, transcribed and de-identified.

Three primary questions drove the evaluation design: (1) What factors contributed to your experiences of burnout?—(a) Were these issues present before COVID-19? and (b) The majority of respondents previously reported very little burnout in regard to working with students, which differed from the reported high levels of personal and professional burnout. What do you feel are the contributing factors to this discrepancy? (2) What lessons did

you learn or what steps did you take as a result of COVID-19 to manage personal and professional wellness and combat burnout (i.e., personal and professional burnout reduction strategies, efficacy on online/hybrid learning)? (3) What policies need to be changed to reduce personal and professional burnout?—In what ways could we cultivate a more humanistic environment for DH educators to prevent burnout?

To analyze the focus group data, the PEG evaluation team coded the transcripts using a deductive and inductive coding approach to identify themes relevant to the evaluation questions. While some codes overlapped with and expanded upon those identified in the previous study (overwork, difficulty with online teaching, interpersonal issues, and institutional responses), new codes were identified. The PEG evaluation team then reached consensus on a codebook with definitions and examples of all codes, which was used as the basis for thematically coding all six focus group transcripts with NVivo 11. Two coders achieved an 88% agreement for one transcript. The rest of the focus groups were then coded independently. Data summaries were created by code to analyze concepts and themes both within each focus group and across the set of focus groups. Analysis sought to include the full breadth of perspective on each topic and lift out dominant perspectives. Finally, connections across codes were identified to synthesize the ways in which codes both related to and deviated from the previous, quantitative research.

3 | RESULTS

Of the 53 randomly selected emails for the August 2021 focus groups, a total of $n = 14$ agreed to be focus group informants for a 26% response rate. Of the remaining 116 emails for the October 2021 focus groups, $n = 13$ agreed to be focus group informants for an 11% response rate. Informants joined from 16 different states and consisted of a mix of educators from the community college, 4-year institution, and dental school settings (Table 1).

The focus group informants shared perspectives and experiences on three main areas: (1) their experiences of personal/professional burnout; (2) experiences of burnout working with students; and (3) their ideas for what changes are needed to reduce experiences of burnout and to promote a more humanistic environment. Contributing factors to experiences of burnout (Figure 2) expressed were: (1) work–life balance ($n = 59$), including (a) overwork, (b) pressure to be available, and (c) lack of boundaries; (2) change ($n = 34$) involving (a) developing new protocols, (b) constant uncertainty, (c) COVID-19 requirements, and (d) new platforms; and (3) negative interactions ($n = 32$) with (a) students and (b) faculty.

TABLE 1 Demographics ($n = 27$)

Faculty per state[a] ($n = 28$)	
California	1
Georgia	2
Idaho	1
Kansas	1
Maine	1
Michigan	6
Minnesota	2
North Carolina	1
Ohio	2
Oregon	2
Florida	1
Tennessee	3
Texas	1
Virginia	1
Washington	2
Wyoming	1
Dental hygiene program setting ($n = 20$)	
Community college	9
Four-year institution	6
Dental school	5
Faculty position[a] ($n = 28$)	
Administrator/program director	12
Full-time faculty	12
Part-time faculty/adjunct clinical or didactic faculty	3

[a]One faculty member had a joint appointment with two different faculty positions in two different states.

3.1 | Work–life balance

Overwork was a major theme that every informant voiced across the groups as negatively impacting their work–life balance. While DH faculty are accustomed to long hours, informants found the additional workload to be overwhelming. Additional burdens introduced by the pandemic that contributed to overwork were the restrictions, requirements, and loss of faculty.

With the switch to virtual meetings and classes, as well as pressure from their administration, students, and themselves, many informants felt they needed to be available more hours of the day than before the COVID-19 pandemic. For others, the convenience of online meetings made it difficult to decline meetings. Furthermore, additional informational meetings took extra time and availability, and the requirement to attend came from administration.

Informants shared a constant flow of administrative, advising and course management work in DH education. Maintaining a healthy work–life balance by trying not to
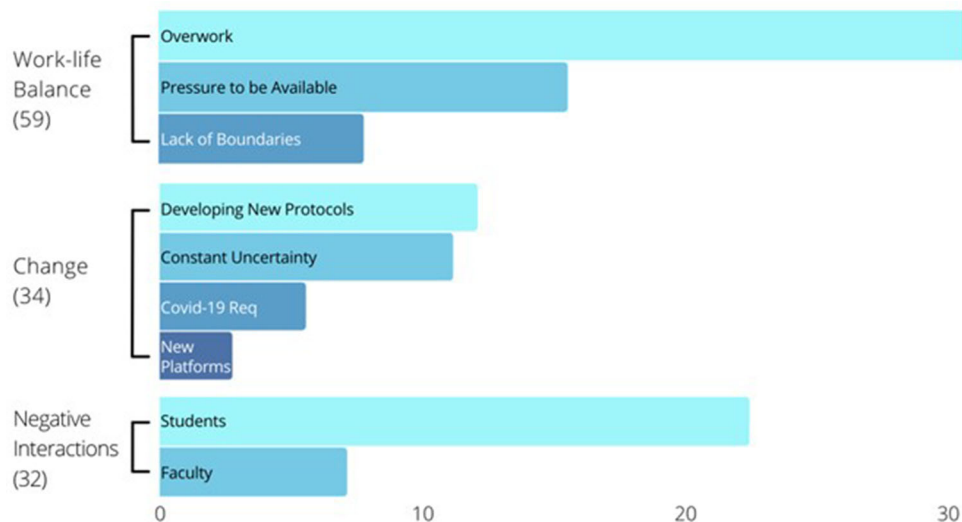
FIGURE 2   Contributing factors to experiences of burnout

work at night or over the weekend was particularly challenging. One informant explained: "In addition, the lack of a clear, physical delineation between work and home, compounding the work–life balance was a struggle." Informants also noted leadership and administration needed to support faculty setting boundaries for a healthy work–life balance. In regard to the increased workload, pressure to be available, and lack of clear boundaries between work and home, "I hope that COVID will change people's work skills, improving their boundaries around time and expectation of getting things done, that it [the task] isn't immediate." Table 2 provides participant responses for the subthemes of (a) overwork, (b) pressure to be available, and (c) lack of boundaries that contributed to a lack of work–life balance.

3.2 | Change

DH educators reported experiencing continued and varying changes (Table 2) over the course of the COVID-19 pandemic. One main, overarching theme was the constant uncertainty that impacted the three subthemes that emerged: (a) the ever-changing requirements for COVID-19, which spilled into, (b) developing new protocols, and (c) the pivot to online delivery of every aspect of DH education. Many informants discussed the stress and exhaustion related to the ever-changing COVID-19 requirements and guidelines coupled with efforts to keep everyone safe. This was compounded by inconsistencies across institutional units, making it even more difficult to keep abreast of the latest institutional requirements. Another significant source of frustration emerged when sending students to off-campus enrichment rotations, where personal protective equipment (PPE) requirements conflicted with

guidelines both from professional organizations and their institutions.

In keeping up with all of these changes, the challenge of having to develop new methods and protocols was an additional burden. With the constant uncertainty and changing COVID-19 requirements, informants had to constantly adapt not only protocols but also the way they were teaching. The adaptations took significant time to complete, and with the frequency of changes, informants often felt there was wasted work effort. This was especially salient for informants who also balanced administrative roles, helping to develop policies for their colleagues. The seemingly never-ending challenges became overwhelming.

The transition to online teaching and learning and navigating new platforms added another layer of pressure that contributed to feelings of burnout. For some, online teaching was a completely new venture, with the added pressure of a very compressed timeline for getting their courses up and running. For other informants, the challenge of formatting clinical or laboratory courses for online delivery added significant pressure due to the behind the scenes work. In addition to technical difficulties with new platforms, additional stress was added. Table 2 provides informant responses for the subthemes of change: (a) developing new protocols, (b) constant uncertainty, (c) COVID-19 requirements, and (d) new platforms that contributed to burnout.

3.3 | Increased negative interactions with other faculty and students

Constant change and uncertainty also fostered interpersonal conflict, negatively impacting collegiality and

TABLE 2 Experiences and perspectives of professional, work related, and working with students' burnout

Work–life balance (n = 59)	
Overwork (n = 31)	"Even before COVID, there was time spent above and beyond, but COVID increased that time."
	"I felt like I could never catch up. I had to figure out how to do ID anatomy virtually—I figured it out but it took a lot of time."
	"We had to do longer clinics to make up for the hours they missed. Days were 12+ hours."
	"All of the restrictions, the rapid shutdown, faculty turnover. It made it so others had to step up and take on additional work."
Pressure to be available (n = 19)	"You know, there were a lot of times I was home with my kids and then teaching class during the day to them, and also teaching class to my students. So, then, I was working into the evening hours, more so than I would on a typical workday because I did have to balance that home life. Trying to keep them on track, keep my students on track, I felt like I answered a lot more emails to keep in touch with the students. I have to do that even more now, even though things have kind of calmed down. We're being accessible at odd hours, more so than I would have before."
	"Convenience factor makes it more difficult. Not sure if I am convinced one way or another, or I can say yes to more things because it's convenient. When it starts bleeding into the early morning or late evening. Not sure if that is more convenient."
	"Had town hall meetings, and had to be involved, had to be in meetings with stakeholders, it's just one thing after another. Comes from the top where the message is staying connected."
	"So, then, I was working into the evening hours, more so than I would on a typical workday because I did have to balance that home life. Trying to keep them on track, keep my students on track, I felt like I answered a lot more emails to keep in touch with the students. I have to do that even more now, even though things have kind of calmed down. We're being accessible at odd hours, more so than I would have before."
Lack of boundaries (n = 9)	"It's the nature of an academic position. Things aren't always done, it's an endless cycle. My job is never done. It's not a task driven job—it's an endless job. It's difficult to balance my time. To know when to say when, and not have it bleed into your weekend when there is no end."
	"I mean you're in the office you're done, you're going home, you know so that has completely just changed for me."
Change	
Developing new protocols (n = 13)	"The uncertainty. The redo to have to go to plan d or e, the wasted time developing plan a, b, c."
	"We had to pivot quickly—we had two weeks to get everything online."
	"Working with students was not an issue, it was preparing the materials, 'how am I going to get this to work?'"
	"Last year was 'Just get me through this.' Every day, putting out fires as they come up. Develop new policies as needed."
	"Navigating the changes, particularly at the beginning of COVID, finding a point person for anyone who got sick. It was never ending change."
Constant uncertainty (n = 12)	"You don't know what is going on from minute to minute, always putting out fires."
	"It's been a rollercoaster over the last year and half, and honestly, I'm ready to retire."
	"The changes that we had to incorporate into the clinical policies were kind of exhausting and making sure that everybody was upholding everything that was new and having to adapt as things changed was mentally exhausting."
COVID-19 requirements (n = 7)	"The changes recommended from this organization to that organization and what we need to do, and staying up to date—it all could cause a little burnout because, rules for the general dentist population were different than the school population and what our school required versus private practice."
New platforms (n = 2)	"Working with students was not an issue, it was preparing the materials, 'how am I going to get this to work?' All the behind the scenes work."
Negative interactions	
Students (n = 23)	"It was hard dealing with student emotions. Students really struggled and I had a lot of students in tears, which had an effect and it's hard to stay positive."
	"I've had a high level of experience in counseling, but no training in that, and this last year and a half, my students have needed a lot more than what I've been trained to give."
Faculty (n = 9)	"Delegating is hard, everyone else is also overworked and overwhelmed, and you don't want to put the extra burden on others."
	"[The situation] added a different level of frustration and discontent. Have noticed the way the faculty relate to each other and the students is different, the level of frustration is high, 'short fuses' are hard to deal with."

student–teacher dynamics. Those with an administrative role voiced additional contributors to burnout stemming from interpersonal conflicts. Some of the additional burnout developed while trying to protect their faculty. Informants also noticed negative attitudes emerging in the workplace, compounding the pressure and stress. Others noted a change in the dynamic between faculty and between faculty and students.

The faculty–student discord was multifaceted. A good portion of this frustration seemed to stem from some of the inherent issues of conducting education virtually over video. For example, many informants discussed frustration with students when they experienced what they perceived as unprofessional behaviors, including students not having their cameras on during synchronous sessions or coming to class in their pajamas. This introduced an interesting challenge as students were at home in their personal space, having had the classroom thrust into their homes. Informants also understood the impact of the constant uncertainties on the students, their lives, and the progress of their education COVID-19 imposed. Many voiced that they empathized with their students, sharing that students would reach out to talk about how they were struggling with the uncertainty and stress of COVID-19. Faculty wanted to provide students with emotional support even if that meant giving more time, which had unexpected consequences for their own mental well-being. Others voiced being unprepared for the role of a counselor and managing students' mental and emotional well-being during COVID-19. Table 2 provides informant responses for negative interactions with students and faculty.

Other themes that emerged contributing to burnout were: difficulty connecting due to virtual or PPE requirements (13), students not performing well (seven), lack of sense of community (six), and resources (four). These themes contributed to the three overarching personal and professional burnout of work–life balance, change, and negative interactions (Figure 1). Technical difficulties and changing PPE requirements resulted in the development of new protocols and the constant stress of uncertainty for didactic and clinical teaching. This coupled with students' low performance and lack of community and resources for both faculty and students increased discord and a lack of comradery. Furthermore, burnout themes of: administration transparency (three), support from administration (two), and the experience of loss (two) negatively impacted work–life balance and contributed to the subthemes of (a) overwork, (b) pressure to be available, and (c) lack of boundaries.

3.4 | Burnout reduction strategies

The most referenced personal and professional burnout reduction strategies (Table 3) that emerged in these focus groups included (1) flexible schedule ($n = 12$), (2) exercise ($n = 6$), (3) supportive environment ($n = 6$), and (4) mental wellness ($n = 4$). Informants reported flexibility and autonomy in their work hours was helpful, especially for parents. A large number of informants talked about how getting outside for a walk or other exercise helped them both mentally and physically. The flexibility of working from home was helpful for informants to find time to exercise. Other themes that emerged to reduce personal and professional burnout were strategies reported by informants they found to be helpful. These strategies were: creating a new definition of success (three), taking care of family (three), learning and using new teaching tools (three), taking time off (two), sleep (two), self-care (two), and setting better boundaries (two).

When considering how administration could support faculty structural resources, including hiring additional full-time faculty, increasing salaries, and resources for moving courses online were suggested. The most referenced policy and practice changes were (1) increasing networking and community building opportunities ($n = 19$), (2) providing more resources ($n = 17$), (3) supporting flexible schedules ($n = 11$), and (4) encouraging a supportive environment ($n = 9$).

A supportive environment was noted as a key aspect for informants to share these experiences with colleagues. Some informants even pointed out that a supportive environment among colleagues helped them perform better. Furthermore, during the focus groups, informants mentioned working on their mental wellness through "me time," meditation, and other methods. Table 3 provides informant strategies to reduce burnout and cultivate a humanistic environment.

4 | DISCUSSION

Burnout in dental education is an emerging concern that COVID-19 has brought into the spotlight. Teaching, combined with the demands of administration, scholarship, service, and patient care, puts dental educators at a higher risk for burnout.[12] It was therefore imperative to further understand DH educators' perceptions of personal and professional burnout as a result of the COVID-19 pandemic, burnout related to working with students, and their efficacy teaching in an online/hybrid environment.

T A B L E 3 Strategies to reduce burnout and cultivate a humanistic environment

Burnout reduction strategies (n = 28)	
Flexible schedule (n = 12)	"You know, prior to COVID working full time you have to be in the office by eight, I commute so I have to leave at five. So I think just having that additional time at home, being able to kind of make my own schedule, so I can spend more time with my child, drop them off to school, attend school events—these are things I couldn't do before and I think that has helped a lot." "Yeah, same thing for me, having a flexible schedule. Not having to have their rigorous, you know nine to five, type of hours. It's especially nice for the times that you're not in class or not expected to be there for clinical hours, whatever the case may be. For example, Fridays, we used to have to have some hours on Fridays as needed depending on our work schedule Monday through Thursday, but now, I can work from home for those couple of hours versus having to drop into the office so flexibility has been great for me."
Exercise (n = 6)	"A lot of the sitting on Zoom is hard. I found a pilates DVD to work out with and it also helped to remind myself to get up and walk around." "made it easier to get out for a walk when working from home."
Supportive environment (n = 6)	"It's helpful when they are understanding of people's situations. Leadership needs to convey the need for understanding." "Trying only to use remote processes when I can. Students are getting burned out with zoom, incorporating more opportunities for students to share and guest speakers." "The program is content heavy, we found we don't have to teach everything we have been been"
Mental wellness (n = 4)	"Got new dogs to help with the loss of older dogs and the stress of COVID." "Took up meditation, thought it was silly, but took classes on an app, and learned how to meditate—it's been really helpful."
Policy and practice changes (n = 56)	
Increased networking and community building opportunities (n = 19)	"Ideally we would be able to do team socials, potlucks, do continuing education together, team building together." "Even when it can't be in-person, the community support is vital, even if it's more difficult to organize and engage in." "You have to have friends. People in similar situations to talk to. That made it feel like I'm not alone and made a difference for me. Not seeing those professional colleagues who are friends was tough. Maintaining friendships and networks despite not seeing each other." "We've been missing out on gatherings. We used to have holiday parties, going to conferences together. That bonding with colleagues, we need more outside of work time to gather."
Provide more resources (n = 17)	"It has to go beyond the department level. Hire more staff, there is just too much work. Adjuncts are great, but they are only paid by the hour. They usually have another job outside of the school. Need more full-time help." "And the pay stayed the same. There was no hazard pay for coming on campus. [This] may not have lessened the load, but it would have shown [their] appreciation." "Hire more staff. We need more PPE." "Distribution of technology, there were staff we didn't have personal computers at home. Weren't ready to do that, but there was an expectation to use their own equipment at home."
Support a flexible work schedule (n = 11)	"It's really interesting because my college did not encourage working from home, it was not 'a thing' before COVID-19 for faculty … but now the policy is very relaxed right now for faculty—they can work from home pretty much all they time, they can teach online as much as they want, but staff and administration have to be on campus 5 days a week … There are only a few people on campus. I wish that would change." "Don't have kids at home, get a lot more done when working from home." "Nice to have the flexibility to not have the pressure to be on campus all the time. I don't have the attention span to work straight hours. I'm more creative at different times of day, mostly late."
Encourage supportive environment (n = 9)	"Being more supportive of each other. There are those who aren't as supportive and it's hard." "When working towards promotion, it's hard. Don't want to feel it is a one up environment. Making the environment more humanistic, more relaxed." "Positive feedback from others would be nice. Every now and then it would be great, 'you really worked hard on that,' 'I appreciate you,' or 'Nice job.' Always get feedback that isn't so great. That can go a long way." "Started utilizing Clifton Strengths. We had a toxic work Figure 5: A summary of the most referenced policy and practice changes 24 13 environment for some time, but we found that the Clifton Strengths made for a more positive environment. Understanding people as individuals, not cookie cutter."

Abbreviation: PPE, personal protective equipment.

The three overarching themes identified in this study as contributors to burnout and teaching efficacy since the COVID-19 pandemic in March 2020 were work–life balance, change, and negative interactions.

4.1 | Work–life balance

Flexible working has been found to significantly reduce work stress while improving productivity and the work environment and has been associated with positive work–life balance.[13,14] Informants felt that continued flexibility would demonstrate administrative support for faculty in working practices. As reported by informants (Table 2) and noted in the literature, flexibility can increase productivity, reduce pressure, and enhance work–life balance.[13,14] A flexible schedule was seen as a facilitator to decrease burnout from informants in the focus groups. Perhaps institutions that support a flexible schedule will reduce stress and promote mindfulness to be fully present regardless of whether they work on site or remotely. A recent Cochrane review noted flexibility as a key contributor to implementing policies for resilience and well-being for those in caring professions during an epidemic or pandemic.[15] Furthermore, flexibility may provide an opportunity for exercise or other activities to facilitate a work–life balance.

Another significant impact of COVID-19 that left many people feeling isolated was the constant change, uncertainty, and discrepancy of guidelines among different states. Informants voiced missing in-person connections and the importance of social support, even if not in person. Informants described community building and social support outside of work as being important to overall well-being and mental health. This theme has short- and long-term implications, as mental health issues of anxiety, depression, and suicide for health care workers have been increasingly cited in the literature since the COVID-19 pandemic.[16–18] Additionally, DH educators have the unique role of clinician and educator, contributing to an increase in burnout reported in this population.[9,11,12] DH educators are predominantly female, and there is an already noted higher level of anxiety and depression for women with school-aged children.[19–21] Kirwin and Ettinger[22] noted that working mothers made up 13% of the United States workforce at the time of the pandemic, with 76% of the mothers in their study displaying moderate to severe mental illness. Concerningly, the findings of their study indicated that working mothers were likely to continue experiencing high levels of mental illness.[22] Strategies including flexible schedules, flexible work from home policies, and mental health programs were just some of the potential solutions recommended to decrease the negative impact of workplace stressors on the mental health of working mothers.[22] Institutions offering flexible work options and proactive mental health programs may therefore be beneficial for DH educators. This is especially important given that informants shared that they were not equipped to counsel students struggling with their mental and emotional stress. This burden may project additional burnout on DH educators.

4.2 | Negative interactions

Negative interactions among students and faculty impeded a humanistic work environment of respect, inclusiveness, and a community from sharing experiences safely without judgment. Swendiman et al.[23] researched on the characteristics of highly effective surgical educators and concluded that a culture that encompasses "psychological safety" is required to prevent burnout. Respondents reported perceived unprofessional behaviors from students, including not having cameras on during live online class sessions and wearing pajamas to class sessions. Regular encounters of perceived low-level unprofessional behaviors or incivility have been shown to take an emotional toll on DH faculty.[24] In addition to needing social support, informants were forthcoming about how to encourage a supportive workplace environment. Informants felt cultivating a supportive environment needed to be twofold—colleague to colleague support and support from administration (Table 3). Some felt that there was a significant lack of collegial support, and others found that utilizing tools to identify individuals' strengths helped improve the workplace environment. One recently documented solution to reducing workplace burnout is to "celebrate" mentorship and scholarship.[25] This evidence aligns with the suggestions from DH educators who participated in these focus groups. It has been identified that females have a higher level of burnout, resulting in job turnover or no interest in leadership roles.[20,21,25] Acknowledgment and praise of DH educators' contributions to students', institutional success, and scholarly activities may improve engagement and career longevity.

Limitations to this focus group study consisted of the small sample size of informants and the convenience sampling. The small sample size may disproportionately represent DH educators. Convenience sampling may have resulted in challenges in obtaining honest responses to sensitive topics. It is unknown whether physical and emotional exhaustion has continued since DH education programs have resumed traditional in-person instruction. Future research should explore DH educator resilience and the longevity of careers post-COVID-19. In addition to coping strategies to reduce burnout for individual DH

educators, strategies to counsel students' dealing with stress and institutional changes to cultivate and maintain a humanistic environment long term for DH educators. However, it should be noted that despite the limitations in the sampling, these findings were consistent with the existing evidence in the literature on burnout in dental education, confirming previous findings, which could be used to initiate change.[9,11,12]

The following recommendations from informants offer strategies to prevent experiences of burnout for DH educators and encourage a more humanistic environment on a structural level and interpersonal level. Structural changes include hiring more full-time educators, increasing salaries, and providing time and space for DH educators to participate in community building. In addition to institutional structural changes to encourage and provide guidelines for flexible schedules and wellness resources for both faculty and students. Encourage a supportive environment and move away from a competitive mindset, reward faculty for taking on wellness practice, collaboration, and helping each other.

Interpersonal level recommendations include supporting fellow colleagues by providing positive feedback, learning about each other's communication styles and meeting to discuss struggles with burnout. Many faculty found these focus groups to be enjoyable and helpful in terms of learning new strategies from one another. Encouraging these conversations to continue could be helpful to continue supporting DH educators.

5 | CONCLUSION

DH educators expressed a number of contributors to burnout, including work–life balance from being over-worked, pressure to make their schedule available, lack of boundaries with students, and maintaining a sense of connection for workplace vitality. Additionally, ever-changing workplace protocols, uncertainty, COVID-19 requirements, and learning new platforms impacted the perception of teaching efficacy. Strategies to prevent experiences of burnout for DH educators and encourage a more humanistic environment need to occur on a structural level and an interpersonal level.

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REFERENCES
1. Maslach C, Leiter MP. Understanding the burnout experience: recent research and its implications for psychiatry. *World Psychiatry*. 2016;15(2):103-111.
2. West CP, Dyrbye LN, Shanafelt TD. Physician burnout: contributors, consequences and solutions. *J Intern Med*. 2018;283(6):516-529.
3. World Health Organization. Burn-out an "occupational phenomenon": international classification of diseases. WHO. 2019. Accessed April 20, 2022. https://www.who.int/news/item/28-05-2019-burn-out-an-occupational-phenomenon-international-classification-of-diseases
4. Peterson U, Demerout E, Gunnar B, et al. Burnout and physical and mental health among Swedish healthcare workers. *J Adv Nurs*. 2008;62(1):84-93.
5. Calvo JM, Kwatra J, Yansane A, et al. Burnout and work engagement among US dentists. *J Patient Saf*. 2021;17(5):398-404.
6. O'Connor K, Muller Neff D, Pitman S, et al. Burnout in mental health professionals: a systematic review and meta-analysis of prevalence and determinants. *Eur Psychiatry*. 2018;53:74-99.
7. Deeb GR, Braun S, Carrico C, et al. Burnout, depression and suicidal ideation in dental and dental hygiene students. *Eur J Dent Educ*. 2018;22(1):e70-e74.
8. Shanafelt TD, Hasan O, Dyrbye LN, et al. Changes in burnout and satisfaction with work–life balance in physicians and the general US working population between 2011 and 2014. *Mayo Clin Proc*. 2015;90:1600-1613.
9. Arnett MC, Ramaswamy V, Evans MD, Rulli D. Impact of Covid-19 on dental hygiene educators: a national survey. *J Dent Educ*. 2022. https://doi.org/10.1002/jdd.12877
10. Boamah SA, Read EA, Spence Laschinger HK. Factors influencing new graduate nurse burnout development, job satisfaction and patient care quality: a time-lagged study. *J Adv Nurs*. 2017;73(5):1182-1195.
11. Suedbeck J, Ludwig EA, Tolle SL. The prevalence of burnout among entry-level dental hygiene program directors. *J Dent Hyg*. 2021;95(1):67-75.
12. Smith CS, Kennedy E, Quick K, et al. Dental faculty well-being amid COVID-19 in fall 2020: a multi-site measure of burnout, loneliness, and resilience. *J Dent Educ*. 2022;86(4):406-415.
13. Mache S, Servaty R, Volker H. Flexible work arrangements in open workspaces and relations to occupational stress, need for recovery and psychological detachment from work. *J Occup Med Toxicol*. 2020;15:5.
14. Bjarntoft S, Hallman DM, Mathiassen SE, et al. Occupational and individual determinants of work–life balance among office workers with flexible work arrangements. *Int J Environ Res Public Health*. 2020;17(4):1418.
15. Pollock A, Campbell P, Cheyne J, et al. Interventions to support the resilience and mental health of frontline health and social care professionals during and after a disease outbreak, epidemic or pandemic: a mixed methods systematic review. *Cochrane Database Syst Rev*. 2020;11(11):CD013779.
16. Dzau VJ, Kirch D, Nasca T. Preventing a parallel pandemic—a national strategy to protect clinicians' well-being. *N Engl J Med*. 2020;383:513-515.
17. Lai J, Ma S, Wang Y, et al. Factors associated with mental health outcomes among health care workers exposed to coronavirus disease 2019. *JAMA Netw Open*. 2020;3:e203976.

18. Spoorthy MS, Pratapa SK, Mahant S. Mental health problems faced by healthcare workers due to the COVID-19 pandemic—a review [Letter]. *Asian J Psychiatr.* 2020;51:102119.

19. Health Policy Institute. Commission on Dental Accreditation; c2021. Survey of allied dental education; c2021. 2019-20 Report 1. Dental hygiene education programs; c2021. Chicago (IL): Health Policy Institute. 2021. Accessed April 20, 2022. https://www.ada.org/en/coda/find-a-program/program-surveys

20. Coffey DS, Eliot K, Goldblatt E, et al. *A multifaceted systems approach to addressing stress in education and beyond. NAM Perspectives.* Discussion Paper. Washington DC: National Academy of Medicine. January 2017. Accessed April 20, 2022. https://nam.edu/wp-content/uploads/2017/01/Multifacted-Systems-Approach-to-Addressing-Stress-Within-Health-Professions-Education-and-Beyond.pdf

21. Marel C, Mills KL, Teesson M. Substance use, mental disorders and COVID-19: a volatile mix. *Curr Opin Psychiatry.* 2021;34(4):351-356.

22. Kirwin MA, Ettinger AK. Working mothers during COVID-19: a cross-sectional study on mental health status and association with the receipt of employment benefits. *BMC Public Health.* 2022;22(1):435.

23. Swendiman RA, Hoffman DI, Bruce AN, Blinman TA. Qualities and methods of highly effective surgical educators: a grounded theory model. *J Surg Educ.* 2019;76(5):1293-1302.

24. McCarthy JL, Giblin-Scanlon L, Perry CR, et al. Faculty perceptions of student incivility in dental hygiene education. *J Dent Educ.* 2020;84(11):1192-1201.

25. Wharton University of Pennsylvania. Improving workplace culture through evidence-based diversity, equity, inclusion practices. May 2021:62. Accessed April 20, 2022. https://www.wharton.upenn.edu/wp-content/uploads/2021/05/Applied-Insights-Lab-Report.pdf