OPEN ACCESS

Understanding what leaders can do to facilitate healthcare workers' feeling valued: improving our knowledge of the strongest burnout mitigator

Martin Stillman ,[1,2] Erin E Sullivan ,[3,4] Kriti Prasad,[5] Christine Sinsky,[6] Jordyn Deubel,[3] Jill O Jin,[7] Roger Brown,[8] Nancy Nankivil,[6] Mark Linzer[1,2]

► Additional supplemental material is published online only. To view, please visit the journal online (https://doi.org/10.1136/leader-2023-000921).

[1]Department of Medicine, Hennepin Healthcare System, Minneapolis, Minnesota, USA
[2]Department of Medicine, University of Minnesota Medical School, Minneapolis, Minnesota, USA
[3]Sawyer School of Business, Suffolk University, Boston, Massachusetts, USA
[4]Harvard Medical School, Boston, Massachusetts, USA
[5]Department of Medicine, Boston Medical Center, Boston, Massachusetts, USA
[6]American Medical Association, Chicago, Illinois, USA
[7]Department of Medicine, Northwestern University Feinberg School of Medicine, Chicago, Illinois, USA
[8]School of Nursing, University of Wisconsin-Madison, Madison, Wisconsin, USA

Correspondence to
Dr Martin Stillman;
martin.stillman@hcmed.org

Received 5 October 2023
Accepted 21 March 2024
Published Online First
22 April 2024

To cite: Stillman M, Sullivan EE, Prasad K, *et al*. *BMJ Leader* 2024;**8**:329–334.

ABSTRACT

Aim Feeling valued is a striking mitigator of burnout yet how to facilitate healthcare workers (HCWs) feeling valued has not been adequately studied. This study discovered factors relating to HCWs feeling valued so leaders can mitigate burnout and retain their workforce.

Method The Coping with COVID-19 survey, initiated in March 2020 by the American Medical Association, was distributed to 208 US healthcare organisations. Of the respondents, 37 685 physicians, advanced practice clinicians, nurses, and other clinical staff answered questions that assessed burnout, intent to leave and whether they felt valued.

Quantitative analysis looked at odds of burnout and intent to leave among the highest versus lowest feeling valued (FV) groups. Open-ended comments provided by 5559 respondents with high or low sense of FV were analysed to understand aspects of work life that contributed to FV.

Results Of 37 685 respondents, 45% felt valued; HCWs who felt highly valued had 8.3 times lower odds of burnout and 10.2 lower odds of intent to leave than those who did not feel valued at all. Qualitative data identified six themes associated with FV: (1) physical safety, (2) compensation and pandemic-related finances, (3) transparent and frequent communication, (4) effective teamwork, (5) empathetic and respectful leaders, and (6) organisational support.

Conclusion This US study demonstrates that FV correlates with burnout and intent to leave, yet only 45% of HCWs feel valued. Six themes link to interventions leaders can follow to facilitate HCWs FV and potentially reduce burnout and increase retention for a challenged healthcare workforce.

WHAT IS ALREADY KNOWN ON THIS TOPIC

⇒ Feeling valued is one of the most consequential contributors to burnout and intent to leave yet there is no large-scale research that elucidates how healthcare organisations and leaders can help healthcare workers feel valued.

WHAT THIS STUDY ADDS

⇒ By conducting the largest qualitative study on this topic to date, we now know with greater clarity what leaders can do to help healthcare workers feel valued.

HOW THIS STUDY MIGHT AFFECT RESEARCH, PRACTICE OR POLICY

⇒ Leaders in healthcare organisations can implement specific initiatives to enhance healthcare workers feeling valued, and thereby have a high likelihood of meaningfully reducing burnout and intent to leave.

INTRODUCTION

The 'Great Resignation' in US healthcare amplified what became apparent in the COVID-19 pandemic: it is critical for clinicians to feel valued.[1] Additionally, this is not unique to the US as demonstrated by 3229 doctors in England resigning from the National Health Service in 2022, with 341 citing burnout as the reason, double what it was 10 years prior.[2] What has not been as clear, however, is what healthcare organisations and leaders can do to facilitate clinicians feeling valued. This is especially important in light of the correlation between not feeling valued and burnout. Studies from early in the pandemic[3] identified burnout rates close to 50% in virtually all healthcare worker (HCW) groups, and more recent studies demonstrate the persistence of COVID-19-related burnout, with rates approaching or exceeding 60% in physicians.[4 5] The sense of feeling valued emerged as a mitigator of burnout[3 6 7] with an association between feeling valued and lower burnout (ie, 40% lower odds of burnout among those who felt valued). Feeling valued accounted for 34% of the variance in job satisfaction among clinicians, with 10 times the odds of satisfaction in those feeling valued.[4]

While the effect of feeling valued on HCW well-being has been newly identified, this relationship has been recognised in other sectors. A 2003 study in the consulting sector on what makes employees feel valued, classified findings into three broad categories: fairness, environment, and inclusion.[8] However, since 2003, there has been limited exploration of how organisations can promote employees feeling valued. One area examined more recently is the importance of respect,[9] where the authors note that 'respect is particularly powerful when received at work because employment is based on an exchange relationship, where tangible and intangible rewards signal the value of a contribution and, indirectly, the value of the person making the contribution' (Rogers and Ashforth,[9] p.1579).

Recent work within healthcare supports the significance of feeling valued as it relates to clinician well-being and burnout. Watts Isley *et al* demonstrated that recognition for individual contributions had an impact on intent to leave.[10] Palamara and

Sinsky found that elements of feeling valued included workload modulation, moral injury prevention, transparent communication, work flexibility, adjusting expectations and burden of work, having financial relief programmes, and an allowance for self-care and work–life balance.[11] While the results are limited by the study's sample size and single institution source, this work has been foundational to our understanding of feeling valued.

Ultimately, while the importance of feeling valued has been recognised in several domains of worker wellness,[12] the mechanisms underlying feeling valued remain elusive, particularly among HCWs. We, thus, undertook an initial quantitative examination, followed by a qualitative evaluation[13] of the American Medical Association's (AMA) Coping with COVID-19 dataset to better understand the construct of feeling valued in healthcare. We expect these results may provide valuable, actionable steps for healthcare organisation leaders struggling with burnout, recruitment, and retention challenges in healthcare systems.

METHODS

The Coping with COVID-19 survey has been previously described.[3 6 7] In brief, large healthcare organisations were recruited through the AMA at the start of the pandemic for participation in a survey about work life and wellness. The survey was given to HCWs in numerous role groups, and for this study, we focused on those in four role types: physicians, advanced practice clinicians (APCs), nurses, and other clinical staff (which included medical assistants, nursing assistants, respiratory therapists, physical therapists, occupational therapists, speech therapists, pharmacists, laboratory technicians and staff, and social workers). The initial survey included approximately 10 items modelled after the validated Mini Z measure for burnout reduction.[14]

Variables included fear of exposure, symptoms of anxiety or depression due to working with COVID-19 patients, work overload, sense of mission and purpose, and feeling valued by one's organisation. Most items were scored using 4 point Likert scales; the top two choices typically were combined to show the variable was 'present' (eg, work control) and the other two responses represented 'absence' of the variable. The survey also included single item measures from the Mini Z for satisfaction and stress; these items and the Mini Z in general has performed well against the Maslach Burnout Inventory (MBI) subscales of emotional exhaustion and depersonalisation.[15] Later during the pandemic, a validated single item burnout metric, correlating with emotional exhaustion on the MBI[16] was added (May 2020), as well as items on intent to leave or reduce hours (July 2020).[17] Burnout, intent to leave, and intent to reduce hours were five choice items, and the top three choices were considered 'present' (ie, burned out, or intending to leave or reduce hours).

For feeling valued, respondents rated their agreement with the statement 'I feel valued by my organisation' on a scale from 1 to 4 with 1 being not at all, 2 somewhat, 3 moderately and 4 being to a great extent. For both the quantitative and qualitative analysis, we compared those with the highest score of 4 ('feeling highly valued') with those with the lowest score of 1 ('not feeling valued at all').

Analysis

We initially used quantitative analyses to examine associations between feeling valued, burnout, and intent to leave among HCWs. To do this, we performed propensity-weighted multilevel logistic regression analyses, which adjusted for factors such as sex, race/ethnicity, inpatient/outpatient setting, years in practice and COVID-19 rates of hospital bed use by state. The two models were then split and analysed by specific role (see online supplemental table 1). These quantitative analyses informed our subsequent qualitative analysis.

We then extracted written text responses from those feeling highly valued or not at all valued who wrote open-ended comments in response to the question: 'What else would you like to tell us about your experience during the COVID-19 crisis?'. After removing empty responses (such as 'N/A' or 'No'), we had 5559 comments for analysis (figure 1). The coding team (EES, MS, KP, JD and, ML) first conducted an exploratory analysis of comments to determine if the analysis should proceed based on the predetermined classifications (role type, degree of feeling valued), and to inductively generate a list of codes.[18] As a next step, each role classification was assigned a pair of analysts to code comments from each role type, and to identify emergent codes specific to that role.[19] Each analyst pair met in consensus conference with a qualitative methods expert (EES) to discuss codes, sort codes into categories and summarise and agree on thematic findings by role to reduce the data in a way that allowed for cross-role comparisons.[20] Two analysts (EES and MS) met and consolidated common themes by role group and identified unique themes that emerged for individual groups. In this way,

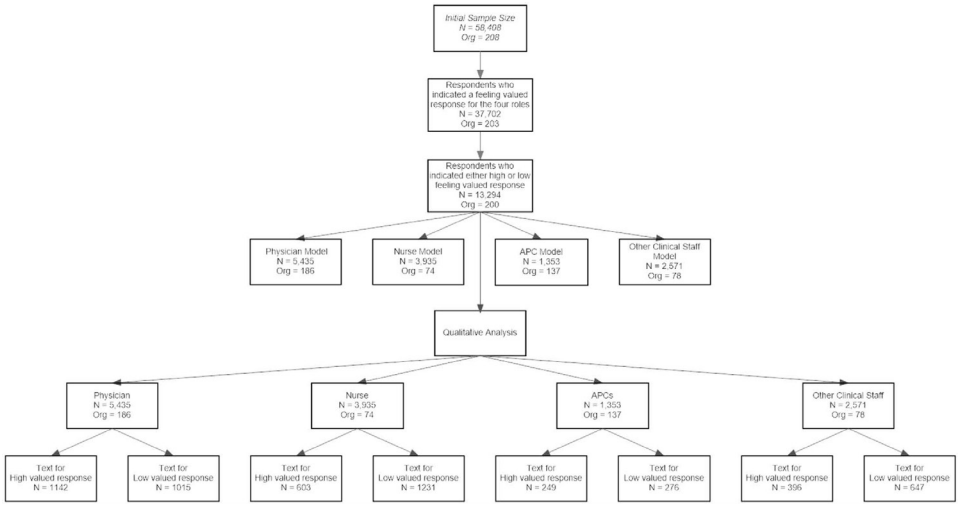

Figure 1 Sampling process for dataset of those feeling highly valued and not valued at all. APCs, advanced practice clinicians.

Table 1 Demographics by role and distribution of feeling valued responses in 13 294 physician, advanced practice clinician (APC), nurse, and other clinical staff who responded as either 1=not at all or 4=to a great extent on a 4-point scale to feeling valued in Coping with COVID-19 survey*

	Total sample	Percent
Sex		
Prefer not to answer	1362	10.25
Male	3773	28.38
Female	8122	61.1
Non-binary/third gender	37	0.28
Ethnicity		
Prefer not to answer	1867	15.34
White	7636	62.74
Hispanic/Latino	575	4.72
Black/African American	655	5.38
Native American	27	0.22
Asian/Pacific Islander	1176	9.66
Other	234	1.92
Years in practice		
1–5 years	2673	20.11
6–10 years	2388	17.97
11–15 years	1972	14.84
16–20 years	1553	11.69
More than 20 years	4385	33
N/A	318	2.39
Role		
Physicians (non-resident)	5435	40.88
APCs	1353	10.18
Nurses	3935	29.6
Other clinical (therapists, lab techs, MA, NA)	2571	19.34

*13 294 subjects who responded to either 1=not at all or 4=to a great extent on a 4-point scale.
MA, medical assistant; N/A, not available; NA, nursing assistant.

data were reduced and themes identified and compared across roles to determine work life aspects that contributed to feeling valued and to illuminate potential drivers of respondents' feeling highly valued or not valued at all. The entire coding team agreed on the singular and cross-role analyses via a series of consensus conferences on the results.

RESULTS

There were 58 408 respondents between April 2020 and December 2020 from 208 US healthcare organisations (median response rate 32%). Most organisations were located in the Western USA (data not shown). Non-clinical respondents, residents, and fellows were excluded from this analysis. The remaining 37 685 respondents included physicians (n=15 138), APCs (n=4256), nurses (n=11 036), and other clinical staff (n=7255). Of these 37 685 respondents, 17 102 (45.4%) felt valued (ratings 3 or 4) and 6404 (17%) felt highly valued (rating 4), while 6890 (18%) felt not valued at all (rating 1). The subset of 13 294 physicians, APCs, nurses, and other staff who felt highly valued or not valued at all was the study's primary sample (figure 1). Most persons in this subset were female and white (table 1).

Quantitative analysis

Feeling highly valued was significantly negatively related to higher burnout and high likelihood to leave practice (table 2). In particular, HCWs who felt highly valued had 8.3 times lower odds of burnout and 10.2 lower odds of intent to leave (adjusted OR (aOR) of burnout 0.121, 95% CI 0.110 to 0.133, aOR of intent to leave 0.098, 95% CI 0.083 to 0.117) than those who did not feel valued at all. In addition, multilevel logistic regressions by role showed these relationships were maintained within all four role groups (see online supplemental table).

Qualitative analysis

Through inductive qualitative analyses, we identified six major themes associated with feeling valued in all role types: (1) physical safety, (2) compensation and organisational finances (due mainly to the pandemic), (3) transparent and frequent communication, (4) effective teamwork, (5) empathetic and respectful leaders and (6) organisational support. Some factors were important to all HCWs, regardless of role type, and several nuanced subthemes applied to one or more role types, but not all. Table 3 summarises these themes with associated practical implications.

Physical Safety

Safety was a major theme reflected by all role types. Most common were expressions of the significance of having readily available personal protective equipment (PPE), such as, 'I felt like I was always well protected with the PPE… [I] Truly felt very safe at work, more safe than going into a grocery store'. Additionally, respondents highlighted that feelings of safety were connected to having available employee testing and screening for COVID-19, responsive employee health divisions, and enforcement of infection control policies. Many APCs who felt valued reflected that telemedicine capability and the ability to work from home enhanced their sense of safety by preventing COVID exposure. Physicians and APCs who did not feel valued indicated frustration when they perceived that productivity goals took priority over personal or patient safety.

Compensation and organisational finances

While differing by role type, the importance of finance and compensation was a universal theme. In general, when physicians

Table 2 Adjusted measures of association between extreme value and burnout and intent to leave, models adjusted using propensity weights based on covariates of ethnicity, sex, years in practice, COVID-19 rate and inpatient–outpatient setting

Model	AOR	ARR	ARD	N	Organisation
Relationship between feeling valued and burnout	0.121 (95% CI 0.110 to 0.133)	0.371 (95% CI 0.352 to 0.391)	−0.481 (95% CI −0.500 to −0.462)	12 172	186
McKelvey and Zavoina's Pseudo-R^2=0.252					
Relationship between feeling valued and intent to leave practice	0.098 (95% CI 0.083 to 0.117)	0.196 (95% CI 0.170 to 0.226)	−0.443 (95% CI −0.468 to −0.418)	5548	129
McKelvey and Zavoina's Pseudo-R^2=0.289					

AOR, adjusted OR; ARD, absolute risk difference; ARR, adjusted relative risk.

Table 3 Major themes associated with feeling valued and practical implications for leaders

Theme	Practical implications
Physical safety	► Protect employees from physical harm, including but not limited to, ensuring adequate procedures and supplies for infection control, addressing workplace hazards, protecting HCWs from hostile situations such as threatening patients.
Compensation and organisational finances	► Provide evidence to HCWs as to how organisational financial compass is aligned with patient care. ► When HCWs are asked to do more, even in crisis, recognise this work financially.
Transparent and frequent communication	► Demonstrate frequent, transparent, high-quality communication that explains reasoning for decision-making.
Teamwork	► Invest and support in high-functioning teams, both within specialties and across disciplines, that foster efficiency, camaraderie and a sense of connection and belonging.
Empathetic and respectful leadership	► Practice proactive, empathetic leadership that invites feedback and explains reasons for material decisions. ► Be present on the 'front lines' of patient care.
Supportive organisations	► Ensure access to mental health support. ► Monitor and address work conditions, workload and work–life balance. ► Promote flexible work schedules and assignments that account for HCW abilities and preferences. ► Support childcare.

HCW, healthcare worker.

were frustrated, they tended to reflect concerns with perceived misaligned priorities of organisational finance and their impact on patient care; non-physician HCWs often commented on personal compensation concerns related to furloughs and pay cuts. Specifically, comments from physicians who did not feel valued tended to reflect concern for organisations caring more about money than patients, such as, 'our hospital system places finances above safe and consistent patient care'.

Non-physician HCWs expressed a sense of dissatisfaction that hazard pay was lacking during a pandemic and noted concerns regarding inadequate or denied vacation time, loss of benefits (ie, health insurance, disability and severance pay), and per diem compensation. Nurses in particular expressed concerns regarding the lack of adequate compensation in comparison to locum tenens nurses.

Transparent and frequent communication

The significance of communication was reflected across all roles. Those who felt valued noted good communication from their leaders, appreciating when it was frequent, transparent, and clear. Nurses, APCs, and physicians who felt valued mentioned multiple effective sources of communication, including updates by leadership and general organisational sources. HCWs not feeling valued felt misinformed and not listened to. In particular, physicians not feeling valued reflected dissatisfaction with the decision-making process behind what was being communicated. For example, not having input on decisions or reasoning behind communicated conclusions was frustrating and connoted a disconnect between leadership and front-line physicians, as in, 'Do not feel supported or listened to by the organisation and decisions are being made by those without knowledge, experience or background'.

Effective teamwork

Perceptions of teamwork did not vary by role type, but HCWs who felt valued consistently commented positively about participation in teams and HCWs who did not feel valued reported the lack of teamwork or did not comment on teamwork. Valued HCWs noted how the team came together and supported each other during the crisis with teams serving as sources of support, connection, and caring that decreased isolation. Mentions of increased camaraderie were common in valued HCWs' reference to teams, with one physician commenting, 'I was impressed by the teamwork and camaraderie among all staff across all departments'. Valued nurses appreciated the interdisciplinary nature of teams, as did other clinical staff. Meanwhile, in physicians, nurses, and APCs who did not feel valued, the absence of comments about teamwork was striking.

Empathetic and respectful leaders

Comments within the administration or leadership theme did not vary greatly across role type, but there was variance in the responses provided by how valued the respondent felt. Those who felt highly valued made comments that were mostly positive and related to characteristics they found present in their leaders and administrators. Across respondents who felt valued in all role types, administrators and leaders were described as supportive, proactive, compassionate, physically present, and understanding of staff needs. HCWs not feeling valued made negative comments about leaders lacking support and presence on the front lines as well as a lack of empathetic, caring or kind behaviour. One respondent noted, 'The lack of support and empathy from my department leadership during the height of the COVID-19 pandemic was quite alarming'. Across roles, those who did not feel valued noted attitudes and behaviours from administrators and leaders that were dismissive, disrespectful or even abusive and threatening, with some not feeling emotionally safe at work.

Supportive organisations

With nuanced differences in strength of conviction, there were common threads among HCWs feeling valued and their perceptions of a supportive organisation. Specifically, all HCWs described supportive organisations as having adequate staffing, flexibility in adjusting workflows in response to patient and HCW needs, promoting working from home, providing adequate mental health support, and having available childcare. Physicians not feeling valued noted a lack of autonomy and felt like they were under scrutiny, while all other HCWs described problems with a lack of control in terms of being deployed to positions that were inappropriate given their qualifications as well as unexpected timings of deployments. Nurses and APCs who did not feel valued called out feeling devalued, replaceable, disposable, and like 'just another number'. Other clinical staff reflected feeling a generalised lack of control and increased sense of chaos. Workload and work conditions also led to not feeling valued, such as working with limited or no breaks, sometimes with longer work hour requirements. Other clinical staff not feeling valued were disheartened by their organisations' focus on only appreciating physicians, nurses, and first responders.

DISCUSSION

Feeling valued matters to workers, and when HCWs feel valued, they are less burned out and less likely to leave their job. Leaders have an interest in reducing HCW burnout as well as retaining HCWs during a time that has been called 'The Great Resignation'.[1] This study set out to understand what specific behaviours and actions facilitate HCWs feeling valued and discovered potential interventions that fit into six overarching themes (table 3). This is not to say that telling people they are valued, for example, through 'healthcare hero' campaigns, does not have a role. In fact, this was sometimes mentioned as being helpful. However, these data suggest it is not likely enough. The way in which HCWs feel valued is multifactorial and to some degree nuanced in terms of the type of HCW considered. This research supports previous findings and also lends meaningful insight into what specific initiatives healthcare leaders could put in place to help their workers feel valued.

Across all roles, HCWs expressed a need to feel safe at work and for their organisation to ensure and protect their safety in order to feel valued. At the earliest stages of the pandemic, the unknown aspects of acquiring and surviving COVID infection made safety an expected priority. However, feeling safe at work is not an issue that only applies during a pandemic. Rather, the pandemic illuminated that safety is an ever-present, basic HCW need that rose to the surface due to stress and uncertainties of the pandemic.[21] Simply stated: if you value HCWs, they will need to feel and be safe before asking them to care for the safety of others. Healthcare leaders are encouraged to think about the safety of their employees broadly and beyond infection control as they work to enhance HCWs' feeling valued.[22] For example, having security present when needed (ie, walking employees to/from their transportation locations at work if necessary), and providing protection from threatening patient encounters all can help HCWs feel safe and, in turn, valued.

Feeling valued as it relates to compensation and organisational finances indicates HCW concerns vary by role types, and organisational leaders may need to tailor financial approaches accordingly. Nurses, APCs and clinical staff whose financial security felt threatened did not feel highly valued. In contrast, physicians who felt highly valued reflected the importance of the organisation's financial compass being aligned with patient care. Similar to the importance of personal safety, those who feel vulnerable to financial strain may need to feel safe in their financial footing in order to feel valued.

The role of leadership and organisational support in helping HCWs feel valued cannot be overstated. Proactive leaders who listen and 'go to the front lines' assist HCWs in feeling valued, and empathetic leadership is critical to allowing HCWs to effectively deliver care as demonstrated in work by Riess.[23] Additionally, leadership rounding has become a well-established practice, and guidelines available from the Centers for Medicare & Medicaid Services are widely available.[24] To improve organisational support and increase HCWs' feelings of value, organisations can develop and maintain effective and safe mental health support programmes for all employees.[25] Furthermore, as we continue to see ongoing stress, burnout, and moral injury among today's HCWs, it is imperative that organisations support mental health availability irrespective of the presence of a pandemic.

HCWs were particularly vulnerable during the pandemic to assignments outside of their comfort zone and preferences. The manner in which leaders deploy HCWs and how HCWs are asked to contribute affects their sense of feeling valued, and the subsequent harm with respect to HCWs feeling valued was clear when they felt that no one cared about what might work best for them in terms of scheduling or duties. It is true that in crisis situations, the ability to be flexible in terms of when and where HCWs are scheduled may be limited. However, leaders can learn from these data that assignments that had no regard for HCWs' needs and capabilities dramatically affected their sense of feeling valued. Whenever possible, and even in times of unanticipated stress, organisational initiatives that promote HCW preferences in terms of abilities to do their work, support flexible work schedules, and recognise the need to be available for family outside of work will go far in supporting workers' feeling valued. HCWs who felt valued often noted a sense of camaraderie and fulfilment despite working more or in different areas because they felt they were working for a greater purpose. This reflects a willingness of workers to lend a hand when needed but does not remove an organisation's obligation to hold it.

While the data were gathered from US healthcare systems, the implications are significant worldwide. In 2022, the Commonwealth Fund surveyed 9526 primary care physicians across 10 high-income countries and found the percentage of general practitioners who found their job 'extremely' or 'very' stressful increased in every country between 2019 and 2022, with the highest 2022 percentage being in the UK at 71%.[26] Additionally, a meta-analysis found the global prevalence of nursing burnout between 2012 and 2022 to be 30% and that it tended to increase gradually over this time.[27] With stress and burnout being an issue worldwide, our findings appear beneficial in terms of the universality of their implications. Namely, aspects of communication, teamwork, leadership, and safety encompass care delivery fundamentals irrespective of the healthcare delivery system.

Our study has both strengths and limitations. This is to our knowledge the largest study of what facilitates HCWs feeling valued, with a qualitative focus allowing the voices of affected HCWs to be heard. The burnout outcome variable is validated[16] against the emotional exhaustion subscale of the MBI. In limitations, the median response rate was modest at 32%, though higher than many physician-based US work–life studies, and of the little data we have about the healthcare organisations themselves, most were in the Western USA, perhaps limiting generalisability.

CONCLUSION

Feeling valued has been shown to be a critical component to reducing burnout and decreasing intent to leave, and our study shows how organisational leaders can act to help workers feel valued. We have identified six interventions for leaders to consider: (1) ensuring employees are safe from physical harm, (2) adequately supporting HCWs financially when needed and evidencing the organisation's financial compass aligns with patient care, (3) demonstrating high-quality communication, (4) supporting high-functioning teams that foster efficiency, camaraderie and a sense of belonging, (5) having present leaders that are empathetic and welcoming of feedback, and (6) practising organisation-wide support of HCWs by providing access to mental healthcare, childcare, flexible work schedules and assignments that account for HCW abilities and preferences. Through these mechanisms, we anticipate that feelings of value will be enhanced, burnout will be reduced, and intent to stay with the organisation will be strengthened for the near and distant future.

Contributors All authors had substantial contributions to the conception or design of the work; or the acquisition, analysis or interpretation of data for the work. RB completed the statistical quantitative analysis and MS, EES, KP, ML and JD completed the qualitative analysis. MS, EES, KP, CS, JOJ, RB, NN and ML contributed to drafting

the work or revising it critically for important intellectual content. MS is responsible for the overall content as guarantor.

Funding This study was funded by the American Medical Association (AMA).

Disclaimer The opinions expressed in this article are those of the authors and should not be interpreted as American Medical Association policy.

Competing interests MS receives support for research and writing on burnout understanding and prevention through his place of employment (Hennepin Healthcare) by the American Medical Association and Optum Office for Provider Advancement (OPA). ML is supported through his place of employment (Hennepin Healthcare) by the American Medical Association, American College of Physicians, Optum Office for Provider Advancement (OPA), Essentia Health Systems, Gillette Children's Hospital, Institute for Healthcare Improvement, California AHEC system and American Board of Internal Medicine Foundation for burnout prevention projects. NN and CS are employed by the American Medical Association. JOJ is a senior physician advisor at the American Medical Association. RB was paid as a consultant by the AMA for his work on this project.

Patient consent for publication Not applicable.

Provenance and peer review Not commissioned; externally peer reviewed.

Data availability statement No data are available.

ORCID iDs
Martin Stillman http://orcid.org/0000-0002-2042-042X
Erin E Sullivan http://orcid.org/0000-0002-9118-7936

REFERENCES

1 Vanderford R. Stay flexible, bosses are told, even as 'great resignation' wanes. *Wall Street Journal* 2022. Available: https://www.wsj.com/articles/stay-flexible-bosses-are-told-even-as-great-resignation-wanes-11671723309
2 Martin N. Record numbers of NHS doctors are resigning. One senior consultant tells us why she had to leave. *Sky News* 2023. Available: https://news.sky.com/story/record-numbers-of-nhs-doctors-are-resigning-one-senior-consultant-tells-us-why-she-had-to-leave-12815928#:~:text=In%20her%20first%20nine%20months,every%20day%2C%22%20she%20said
3 Prasad K, McLoughlin C, Stillman M, *et al*. Prevalence and correlates of stress and burnout among U.S. Healthcare workers during the COVID-19 pandemic: a national cross-sectional survey study. *EClinicalMedicine* 2021;35:100879.
4 Linzer M, Jin JO, Shah P, *et al*. Trends in clinician burnout with associated mitigating and aggravating factors during the COVID-19 pandemic. *JAMA Health Forum* 2022;3:e224163.
5 Shanafelt TD, West CP, Dyrbye LN, *et al*. Changes in burnout and satisfaction with work-life integration in physicians during the first 2 years of the COVID-19 pandemic. *Mayo Clin Proc* 2022;97:2248–58.
6 Linzer M, Stillman M, Brown R, *et al*. Preliminary report: US physician stress during the early days of the COVID-19 pandemic. *Mayo Clin Proc Innov Qual Outcomes* 2021;5:127–36.
7 Sinsky CA, Brown RL, Stillman MJ, *et al*. COVID-related stress and work intentions in a sample of US health care workers. *Mayo Clin Proc Innov Qual Outcomes* 2021;5:1165–73.
8 White M, Mackenzie-Davey K. Feeling valued at work? A qualitative study of corporate training consultants. *Career Development International* 2003;8:228–34.
9 Rogers KM, Ashforth BE. Respect in organizations: feeling valued as "We" and "me". *J Management* 2017;43:1578–608.
10 Watts Isley J, Little SH, Sha S, *et al*. To stay or leave: public health nurse workforce retention in North Carolina. *Public Health Nurs* 2022;39:609–17.
11 Palamara K, Sinsky C. Four key questions leaders can ask to support Clinicians during the COVID-19 pandemic recovery phase. *Mayo Clin Proc* 2022;97:22–5.
12 American Psychological Association. APA survey finds feeling valued at work linked to well-being and performance. 2012. Available: https://www.apa.org/news/press/releases/2012/03/well-being [Accessed 19 Apr 2023].
13 Schoonenboom J, Johnson RB. How to construct a mixed methods research design. *Kolner Z Soz Sozpsychol* 2017;69:107–31.
14 Linzer M, McLoughlin C, Poplau S, *et al*. The mini Z Worklife and burnout reduction instrument: psychometrics and clinical implications. *J Gen Intern Med* 2022;37:2876–8.
15 Olson K, Sinsky C, Rinne ST, *et al*. Cross-sectional survey of workplace stressors associated with physician burnout measured by the Mini-Z and the Maslach burnout inventory. *Stress Health* 2019;35:157–75.
16 Rohland BM, Kruse GR, Rohrer JE. Validation of a single-Item measure of burnout against the Maslach burnout inventory among physicians. *Stress and Health* 2004;20:75–9.
17 Williams ES, Konrad TR, Linzer M, *et al*. Refining the measurement of physician job satisfaction: results from the Physician Worklife Survey. SGIM Career Satisfaction Study Group. Society of General Internal Medicine. *Med Care* 1999;37:1140–54.
18 Guest G, MacQueen KM. Handbook for team-based qualitative research. Landham, MD: Rowman & Littlefield Publishing Group, 2008.
19 Miles MB, Huberman AM, Saldana J. Qualitative data analysis: a methods sourcebook. Thousand Oaks, CA: Sage Publications, 2018.
20 Namey E, Guest G, Thairu L, *et al*. Data reduction techniques for large qualitative data SETS. In: Guest L, MacQueen K, eds. *Handbook for team-based qualitative research*. Lanham, MD: AltaMira Press, 2008: 137–40.
21 Sonis J, Pathman DE, Read S, *et al*. Effects of healthcare organization actions and policies related to COVID-19 on perceived organizational support among US internists: a national study. *J Healthc Manag* 2022;67:192–205.
22 Van Gorder C. Healthcare workplace violence: hurting those who try to help. *J Healthc Manag* 2022;67:412–5.
23 Riess H. The science of empathy. *J Patient Exp* 2017;4:74–7.
24 Jarrett MP. Patient safety and leadership: do you walk the walk *J Healthc Manag* 2017;62:88–92.
25 Grasso DJ, Lewin MM, Adams B, *et al*. Pandemic-related experiences and stress among children's hospital staff predict psychosocial risk. *J Healthc Manag* 2022;67:75–88.
26 Beech J, Fraser C, Gardner T, *et al*. Stressed and overworked: what the Commonwealth Fund's 2022 International Health Policy Survey of primary care physicians in 10 countries means for the UK. The Health Foundation, 2023. Available: https://doi.org/10.37829/HF-2023-P12
27 Ge MW, Hu FH, Jia YJ, *et al*. Global prevalence of nursing burnout syndrome and temporal trends for the last 10 years: a meta-analysis of 94 studies covering over 30 countries. *J Clin Nurs* 2023;32:5836–54.

Appendix: Supplemental Table 1. Regression models for feeling valued in relation to burnout and intent to leave by role group.

		Physician Burnout N = 4,950 Organizations = 173								
Model 1										
	AOR	95% CI		p-value	ARR	95% CI		ARD	95% CI	
Highly valued	0.15	0.13	0.17	<0.001	0.38	0.35	0.41	-0.44	-0.47	-0.41
		McKelvey&Zavoina-Pseudo-R2 = 0.25								
		Physician Intent to Leave N = 3,266 Organizations = 118								
Model 2										
	AOR	95% CI		p-value	ARR	95% CI		ARD	95% CI	
Highly valued	0.12	0.09	0.14	<0.001	0.21	0.17	0.24	-0.39	-0.42	-0.36
		McKelvey&Zavoina-Pseudo-R2 = 0.32								
Model 3		APP Burnout N = 1,166 Organizations = 124								
	AOR	95% CI		p-value	ARR	95% CI		ARD	95% CI	
Highly valued	0.12	0.08	0.15	<0.001	0.40	0.34	0.46	-0.47	-0.53	-0.42
		McKelvey&Zavoina-Pseudo-R2 = 0.37								
Model 4		APP Intent to Leave N = 703 Organizations = 83								
	AOR	95% CI		p-value	ARR	95% CI		ARD	95% CI	
Highly valued	0.08	0.04	0.12	<0.001	0.19	0.13	0.27	-0.52	-0.58	-0.45
		McKelvey&Zavoina-Pseudo-R2 = 0.46								
Model 5		Nurse Burnout N = 3,600 Organizations = 67								
	AOR	95% CI		p-value	ARR	95% CI		ARD	95% CI	
Highly valued	0.10	0.08	0.12	<0.001	0.37	0.33	0.41	-0.50	-0.53	-0.46
		McKelvey&Zavoina-Pseudo-R2 = 0.29								
Model 6		Nurse Intent to Leave N = 829 Organizations = 30								
	AOR	95% CI		p-value	ARR	95% CI		ARD	95% CI	
Highly valued	0.09	0.05	0.16	<0.001	0.24	0.16	0.35	-0.49	-0.57	-0.42
		McKelvey&Zavoina-Pseudo-R2 = 0.25								
Model 7		Other Clinical Staff Burnout N = 2,456 Organizations = 71								
	AOR	95% CI		p-value	ARR	95% CI		ARD	95% CI	
Highly valued	0.10	0.08	0.12	<0.001	0.34	0.30	0.39	-0.51	-0.55	-0.47
		McKelvey&Zavoina-Pseudo-R2 = 0.32								

Model 8		Other clinical Staff Intent to Leave N = 750 Organizations = 35								
	AOR	95% CI		p-value	ARR	95% CI		ARD	95% CI	
Highly valued	0.05	0.03	0.11	<0.001	0.12	0.06	0.22	-0.50	-0.57	-0.44
		McKelvey&Zavoina-Pseudo-R2 = 0.37								

AOR = Adjusted Odds Ratios; ARR = Adjusted Relative Risk; ARD = Absolute Risk Difference.