Assessment of burnout and pandemic fatigue among pharmacy leadership in the Veterans Health Administration healthcare system

Annita E. Mathew, PharmD, VA Eastern Colorado Health Care System, Aurora. CO. USA

Jordan D. Nelson, PharmD, MBA, BCACP, Pharmacy Benefits Management Service, US Department of Veterans Affairs, Washington, DC, USA

Mary Rasmussen, PharmD, BCACP, VA Central Iowa Health Care System, Des Moines, IA, USA

Heather Ourth, PharmD, BCPS, BCGP, FASHP, Pharmacy Benefits Management Services, US Department of Veterans Affairs, Washington, DC, USA **Purpose.** Factors associated with burnout in Veterans Health Administration (VHA) pharmacy leadership positions were examined during the coronavirus disease 2019 (COVID-19) pandemic.

Methods. A questionnaire was distributed to all pharmacy executives of the VHA healthcare system. It collected demographic and employment characteristics, career satisfaction and work-related variables, indicators of burnout using validated single-item measures adapted from the Maslach Burnout Inventory, and the impact of the COVID-19 pandemic on psychosocial and work-related variables. A χ^2 test with Bonferroni correction was used to evaluate the data. Burnout was defined as a score of 4 or greater on either of the 2 single-item validated statements adapted from the Maslach Burnout Inventory to assess emotional exhaustion and depersonalization.

Results. In total, 407 (of 1,027; 39.6%) VHA pharmacy leaders representing Veterans Integrated Service Network pharmacy executives, chiefs of pharmacy, associate chiefs of pharmacy, and inpatient and outpatient supervisors completed the survey. The overall prevalence of burnout was 68.6% using the aggregate measure of emotional exhaustion or depersonalization. Pharmacy leaders who worked more than 60 hours a week reported significantly greater rates of burnout than those who worked 40 to 60 hours a week (86.7% vs 66.9%, $\chi^2 = 7.34$, degrees of freedom = 1, P < 0.05). Those experiencing increased workload related to COVID-19 also reported high burnout rates (72.1%, $\chi^2 = 16.40$, degrees of freedom = 1, P < 0.001). Burnout scores were similar across groups when respondents were stratified by leadership position, gender, age, or years in position.

Conclusion. As of March 2021, two-thirds of pharmacy leaders were experiencing burnout. It is important for healthcare system leadership to identify patterns of burnout among their pharmacy leaders to ensure a productive and sustainable workforce.

Keywords: burnout, COVID-19, depersonalization, emotional exhaustion, job satisfaction pharmacist, pharmacy executive

Am J Health-Syst Pharm. 2022; XX:0-0

Address correspondence to Dr. Mathew (annita.mathew@va.gov).

Published by Oxford University Press on behalf of the American Society of Health-System Pharmacists 2022. This work is written by (a) US Government employee(s) and is in the public domain in the US.

https://doi.org/10.1093/ajhp/zxac198

Durnout is described by the World Health Organization (WHO) 2019 International Classification of Diseases, 11th Revision, as a syndrome caused by prolonged working stress that has not been effectively handled. Emotions of energy depletion or weariness, mental detachment from one's employment, and pessimism or cynicism about one's profession are all signs of burnout.

The presence of burnout syndrome in healthcare professionals, including in physicians and nurses, has been well documented worldwide. In 2012, Shanafelt et al¹ reported that 45% of physicians in the US acknowledge having at least one symptom of burnout. Research has indicated that higher levels of emotional exhaustion and depersonalization among healthcare professionals are

associated with lower levels of patient safety and quality of care.² Although these reports highlight the prevalence of burnout within healthcare systems before the coronavirus disease 2019 (COVID-19) pandemic, the demands of the pandemic on healthcare systems across the nation has led to greater stress and frustration among healthcare professionals.³

Studies focused on the well-being of pharmacists and support staff have indicated burnout rates of over 50% with high levels of emotional exhaustion reported.3-5 In a 2018 survey, 53.2 % of pharmacists experienced a high degree of burnout on at least one subscale of the Maslach Burnout Inventory (MBI)-Human Services Survey.6 However, data are scarce on the incidence of emotional exhaustion and depersonalization among pharmacy leaders. When working to minimize turnover rates within a healthcare system, it is necessary to explore the impact of job satisfaction and workplace-related burnout for pharmacy leaders to optimize healthcare delivery. This descriptive study aimed to explore the factors associated with burnout in Veterans Health Administration (VHA) pharmacy leadership positions during the COVID-19 pandemic.

Methods

Design. This report describes the utilization of a cross-sectional survey to evaluate burnout and job satisfaction in Veterans Administration (VA) medical centers while also identifying potential barriers experienced by staff ascending in leadership responsibilities within the healthcare system. The survey was conducted from February 5 to March 19, 2021. The institutional review board of the Edward Hines Jr VA Hospital/Captain James A. Lovell Federal Health Care Center completed a formal review and granted the study exempt status before data collection.

Sample. All Veterans Integrated Service Network (VISN) pharmacy executives (VPEs), chiefs of pharmacy, associate chiefs of pharmacy, and pharmacy supervisors were included. All



Annita Mathew. PharmD. the Southern Colorado Clinical Pharmacy Supervisor for the VA Colorado Healthcare Fastern System. She received her bachelor of science degree in biology from Bradley University in 2015 and her doctorate of pharmacy, magna cum laude, from the University of Illinois-Chicago in 2020. Dr. Mathew completed 2 ASHP-accredited postgraduate residencies: year 1 at the VA Central Iowa Health Care System and year 2 in ambulatory care at the Boise VA Medical Center. Her current professional interests include eliminating gaps in access to primary care services, promoting access to higher education in Black, Indigenous, and People of Color communities, and addressing career sustainability for the profession of pharmacy.

1,027 potential participants were identified through VHA pharmacy leadership email groups, which included all medical centers across a total of 23 VISNs.

Measurements. The 23-question inventory was developed through literature review. The first section of the inventory included 2 single-item validated statements adapted from the MBI to assess emotional exhaustion (MBI-EE) and depersonalization (MBI-DP). MBI-EE ("I feel burned out from my work.") and MBI-DP ("I worry that this job is hardening me emotionally.") were registered on a Likert scale from 0 (never) to 6 (every day). Burnout

was defined as a score of 4 or greater on either the MBI-EE or MBI-DP (once weekly or more). Validation and utilization of these abbreviated burnout assessment tools has been described by previous literature. The series of statements intended to determine the impact of the COVID-19 pandemic on the emotional well-being of VHA pharmacy leaders was answered using a 7-point Likert scale (from 1 [strongly disagree] to 7 [strongly agree]).

The questionnaire also requested respondents to provide demographic information. Additionally, respondents could assess their career satisfaction and respond to questions regarding the work environment at their institution. The items assessing career sustainability were as follows: "My work schedule takes me away from my personal/family life," "I wonder how long I will be able to continue working/ leading my staff," "I feel a sense of dread when I think about the work I have to do," and "My work is satisfying and meaningful to me." Each item of work- and career-related satisfaction was measured on a 7-point Likert scale (from 1 [never] to 7 [every day]) and was treated as its own metric (ie, a summary score was not calculated). The items to assess career and work environment were identified as critical through a review of the current literature on pharmacists' career satisfaction, turnover, and job stress.

The inventory was peer reviewed by pharmacists from the VA Pharmacy Benefits Management Services Clinical Pharmacy Practice Office and the VA Central Iowa Health Care System. The investigators pilot tested and revised the survey before it was distributed to all active VHA pharmacy leadership virtually using the REDCap online survey tool. REDCap is hosted through the VA Informatics and Computing Infrastructure and is accessible only through the VA Intranet.

Implementation. A preliminary email outlining the objective of the survey was sent, followed by the survey link 2 days later; 3 biweekly reminder emails were sent automatically

using REDCap to nonresponders. Investigators were blinded to the survey participants and responses.

Analysis. To achieve 80% power, with a Bonferroni-corrected α of \leq 0.005 across 10 categories and a moderate effect size (Cohen's f = 0.25), the minimum number of participants needed was determined to be 264. However, no limits were placed on the number

of participants allowed to complete the survey. A χ^2 test was used to compare the overall frequency of burnout and each characteristic of interest. The a priori level of significance was 0.05. For variables with statistically significant differences, Bonferroni correction was used for familywise multiple comparisons to avoid type 1 error inflation. Statistical analysis involved use

of Python (version 3.8.8) with pandas (version 1.2.4), NumPy (version 1.19.2), and SciPy (version 1.2.1). Descriptive statistics were used to report the respondents' answers to career satisfaction and work environment statements.

Results

The survey response rate was 39.6% (407/1,027), and all survey respondents

Table 1. Characteristics of Survey Respondents and Cross-tabulation of Burnout Assessed by 2 Single-Item Measures for Emotional Exhaustion and Depersonalization, for the Entire Sample (N = 407)

Characteristic ^a	No burnout on MBI-EE or MBI-DP ^b	Burnout on MBI-EE or MBI-DP ^b	χ² (df)	<i>P</i> value ^c
Age			7.88 (4)	0.096
25-34 years	12 (22.2)	42 (77.8)		
35-44 years	39 (27.1)	105 (72.9)		
45-54 years	39 (66.4)	77 (66.4)		
55-64 years	30 (58.3)	42 (58.3)		
≥65 years	7 (41.2)	10 (58.8)		
Gender			3.34 (2)	0.189
Female	73 (32.4)	152 (67.6)		
Male	53 (31.0)	118 (69.0)		
Prefer not to identify	0 (0)	7 (100.0)		
Position title			4.31 (4)	0.366
Inpatient supervisor/manager	16 (25.4)	47 (74.6)		
Outpatient supervisor/manager	34 (33.3)	68 (66.7)		
Associate chief, clinical/operational or other pharmacy services	45 (34.6)	85 (65.4)		
Chief, pharmacy services	23 (26.1)	65 (73.9)		
VISN pharmacy executive	6 (46.2)	7 (53.8)		
Tenure in current leadership position			3.41 (4)	0.491
0-4 years	65 (34.9)	121 (65.1)		
5-9 years	31 (27.9)	80 (72.1)		
10-14 years	16 (26.2)	45 (73.8)		
15-19 years	4 (22.2)	14 (77.8)		
≥20 years	10 (35.7)	18 (64.3)		
Training history for management position			4.10 (2)	0.129
Formal college degree program	10 (20.8)	38 (79.2)		
Formal nondegree training program	13 (41.9)	18 (58.1)		
On-the-job training	102 (31.7)	220 (68.3)		

Abbreviations: df, degrees of freedom; MBI-DP, Maslach Burnout Inventory for depersonalization; MBI-EE, Maslach Burnout Inventory for emotional exhaustion: VISN. Veterans Integrated Service Network.

^aData shown as No. (%).

^bFor the single-item measures, burnout was defined as a score of ≥4 (ie, a frequency of once a week or more).

[°]Significance was defined as $P \le 0.05$.

chose to not answer at least one question. Demographic data, including employment characteristics, are summarized in Table 1. The participants' ages ranged from 25 to ≥65 years (median age group, 35-44 years). The sample consisted of 225 (55.3 %) females and 171 (42.0%) males (Table 1). The majority of respondents were trained for a management position on the job (80%), and nearly half had been in their current leadership position for less than 4 years (46%).

Figure 1 shows the overall results on the MBI-EE and MBI-DP. In total, 260 respondents (64.2%) scored 4 or higher on the emotional exhaustion scale while 208 (51.2%) respondents indicated burnout on the depersonalization scale. Overall, 68.6% (n = 280) of respondents reported experiencing burnout on either the MBI-EE or MBI-DP. Both genders indicated nearly 68% burnout on either the MBI-EE or MBI-DP (Table 1). The proportion of respondents who reported burnout did not differ by respondents' self-reported age ($\chi^2 = 7.88$, degrees of freedom [df] = 4, P = 0.096), gender ($\chi^2 = 3.34$, df = 2, P = 0.189), leadership position $(\chi^2 = 4.31, df = 4, P = 0.366)$, years in the position ($\chi^2 = 3.41$, df = 4, P = 0.491), or training history ($\chi^2 = 4.10$, df = 2, P = 0.129).

Table 2 shows the workplace factors and career outlook of the survey respondents. Those who worked more than 60 hours a week experienced significantly more burnout than those who worked 40 to 60 hours a week (86.7% vs 66.9%, $\chi^2 = 7.34$, df = 1, P = 0.006). With regard to future career plans, participants who expressed a desire to look for a new position reported experiencing significantly more burnout than those who did not (76.8% vs 55.6%, $\chi^2 = 20.37$, df = 1, P < 0.0001). Compared to those not looking for a new position, participants with plans to look for opportunities within a year (83.9%, $\chi^2 = 20.14$, df = 1, P < 0.0001), 3 years $(75.9\%, \chi^2 = 11.68, df = 1, P = 0.0006),$ and 5 years (78.4%, $\chi^2 = 6.61$, df = 1, P < 0.010) reported significantly more burnout, with an adjusted Bonferronicorrected α of ≤ 0.0125 . When compared to those not interested in pursuing a new position in the future, pharmacy leaders indicating an intent to look for future opportunities that were nonsupervisory reported significantly more burnout (55.1% vs 87.8%, $\chi^2 = 31.76$, df = 1, P < 0.0001). However, this significant difference was not observed for respondents with an intent to transition into a supervisory position (65.1%, $\chi^2 = 2.94$, df = 1, P = 0.086), with an adjusted Bonferroni-corrected α of ≤ 0.025 . Respondents looking for their next opportunity outside VHA reported more significant burnout than those looking within VHA (79.5% vs 67.1%, $\chi^2 = 4.20$, df = 1, P = 0.040).

When asked about work satisfaction, most pharmacy leaders indicated feeling a sense of fulfillment once a week or more (72.3%; 293/405) (Figure 2). When asked about feeling a sense of dread when considering the work for which they are responsible, 46.6% (189/405) of pharmacy leaders reported concerns once a week or more. Additionally, 60.6% (246/406) of pharmacy leaders reported being taken away from personal and family life due to work responsibilities. When asked about their degree of concern about the sustainability of working and leading their staff in their current position, 45.6% (184/403) of respondents indicated being concerned once a week or

Figure 1. Overall results for burnout in Veterans Health Administration (VHA) pharmacy leadership by Maslach Burnout Inventory validated single-item measures for emotional exhaustion (MBI-EE) and depersonalization (MBI-DP). Aggregate results indicate respondents that scored a 4 or higher on either the MBI-EE or MBI-DP.

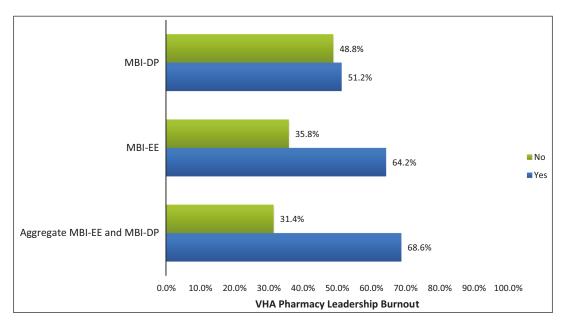


Table 2. Workplace Factors and Career Outlook of Survey Respondents								
Variable ^a	No burnout on MBI-EE or MBI-DP ^b	Burnout on MBI-EE or MBI-DP ^b	χ² (df)	<i>P</i> value ^c				
Time worked per week (at institution	n + home)							
40-60 hours	118 (33.1)	238 (66.9)	NAd	NAd				
>60 hours	6 (13.3)	39 (86.7)	7.34 (1)	0.006				
<40 hours	2 (50.0)	2 (50.0)	0.51 (1)	0.477				
Interest in transitioning to another p	osition in the future							
No	68 (44.4)	84 (55.6)	20.37 (1)	<0.0001				
Yes	58 (23.2)	192 (76.8)						
Timeframe for interest in transitioning	ng to a new position							
NA	68 (44.4)	84 (55.6)	NAd	NAd				
Next year	14 (16.1)	73 (83.9)	20.14 (1)	<0.0001°				
Next 3 years	26 (24.1)	82 (75.9)	11.68 (1)	0.0006e				
Next 5 years	8 (21.6)	29 (78.4)	6.61 (1)	0.010e				
Next 10 years	10 (55.6)	8 (44.4)	0.76 (1)	0.38				
Type of position interested in pursui	ng in the future							
NA	61 (44.9)	75 (55.1)	NAd	NAd				
Nonsupervisory position	14 (12.2)	101 (87.8)	31.76 (1)	<0.0001 ^f				
Supervisory position	52 (34.9)	97 (65.1)	2.94 (1)	0.086				
Setting of position interested in pure	suing in the future							
Outside VHA	17 (20.5)	66 (79.5)	4.20 (1)	0.040				
Within VHA	101 (32.9)	206 (67.1)						

Abbreviations: MBI-DP, Maslach Burnout Inventory for depersonalization; MBI-EE, Maslach Burnout Inventory for emotional exhaustion; NA, not applicable; VHA, Veterans Health Administration.

more. Figure 3 shows the top items the respondents noted as a major factor resulting in increased work stress, including workload (62.6%), resolving interpersonal/staff conflicts (22.6%), technology issues/stressors (6.9%), maintaining day-to-day operations (4.9%), balancing competing priorities (1.7%), surveyors (1%), and unforeseen issues (0.3%).

With regard to the impact of COVID-19, the majority of respondents reported increased workload due to COVID-19 (89.2%) (Table 3), while 10.6% reported no change and 0.25% reported a decrease in workload. Because only one respondent reported a decrease in work hours secondary to

COVID-19, their data was not included in the analysis due to the low sample size. Respondents who reported increased workload also reported significantly more burnout than those who did not (72.1% vs 41.9%, χ^2 = 16.40, df = 1, P < 0.001). No subgroup analysis was performed on the number of hour ranges worked per week as this was already addressed in the analysis above.

Figure 4 shows the impact of COVID-19 on leadership practices. Across the study, respondents agreed that the concept of well-being for those affected by COVID-19 is strong within VHA (52.9%; 215/406) and most respondents agreed to some extent that VHA evaluates the challenges

related to COVID-19 in a manner that considers the complexities of patient care (54.9%; 223/406). More than two-thirds of respondents remained neutral or disagreed that they had experienced new or increased feelings of inadequacy regarding their leadership abilities (67.8%; 274/404), while 74.8% (304/406) of respondents remained neutral or disagreed that the impact of COVID-19 had made them question their leadership abilities. Figure 5 shows the changes VHA leaders have enacted to adapt to the pressures of the COVID-19 pandemic, including new telework agreements (50.9%), a split workforce (22.9%), reallocation of staff to areas of need

^aData shown as No. (%).

^bFor the single-item measures, burnout was defined as a score of ≥4 (ie, a frequency of once a week or more).

[°]Significance was defined as $P \le 0.05$ unless otherwise noted.

dRelative to the control group.

[°]Bonferroni-corrected $\alpha \leq 0.0125$.

Bonferroni-corrected $\alpha \leq 0.025$.

Figure 2. Level of agreement of Veterans Health Administration leadership survey respondents with statements related to career sustainability.

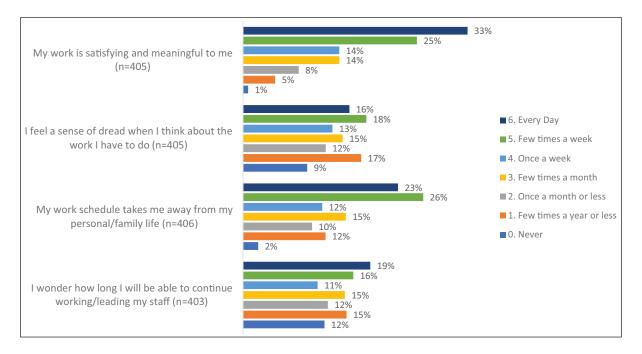
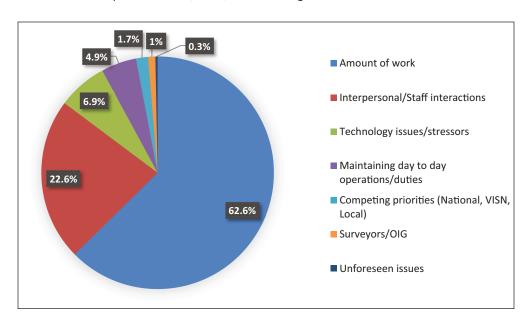


Figure 3. The top 3 factors affecting work stress reported by Veterans Health Administration leadership survey respondents. OIG indicates Office of Inspector General; VISN, Veterans Integrated Service Network.



(11.6%), increased telework (4.4%), modified job duties (1.7%), increased staffing duties by leadership (2%), increased number of meetings (1.2%), assumption of an acting position (0.7%), condensed work hours (0.7%), shifted work hours (0.3%), and no changes (3.5%).

Discussion

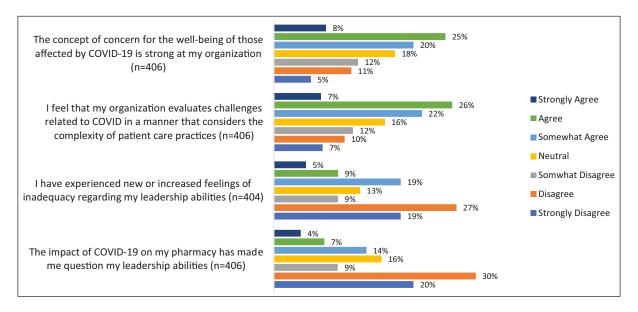
Our research revealed that 68.6% of VHA pharmacy leaders are experiencing symptoms of burnout at least once a week, and those who reported increased workload due to COVID-19 indicated a higher occurrence of burnout symptoms. This multicenter report

describes the largest and first national study on pharmacy leadership burnout thus far. Utilization of the MBI-EE and MBI-DP in this inventory ensured a validated assessment of burnout. This report characterized burnout trends across major VHA pharmacy leadership executive positions: VISN VPEs,

Variable ^a	No burnout on MBI-EE or MBI-DPb	Burnout on MBI-EE or MBI-DPb	χ^2 (df)	P value
mpact on workload				
None	25 (58.1)	18 (41.9)	NAd	NAd
Increase	101 (27.9)	261 (72.1)	16.40 (1)	<0.001
Decrease	0	1 (100.0)	NAe	NAe
mpact on time worked per	week		NAf	NAf
Increased: 0-5 hours	39 (38.2)	63 (61.8)		
Increased: 5-15 hours	46 (25.3)	136 (74.7)		
Increased: 15-40 hours	14 (20.0)	56 (80.0)		
Increased: 40+ hours	2 (28.6)	5 (71.4)		
Decreased: 0-5 hours	0	1 (100.0)		

Abbreviations: COVID-19, coronavirus disease 2019; MBI-DP, Maslach Burnout Inventory for depersonalization; MBI-EE, Maslach Burnout Inventory for emotional exhaustion; NA, not applicable.

Figure 4. Level of agreement of Veterans Health Administration leadership survey respondents with statements related to the impact of coronavirus disease 2019 (COVID-19) on leadership practices. Totals may not equal 100% due to rounding.



chiefs of pharmacy, associate chiefs of pharmacy, and all pharmacy supervisors. Our questionnaire also captured the impact of several effects of the COVID-19 pandemic on the mental well-being of VHA pharmacy leaders.

Pharmacy leaders serve as a vital part of all healthcare systems. The complexity of the job of every VPE, chief of pharmacy, associate chief of pharmacy, and pharmacy supervisor has increased significantly over the past decade. The COVID-19 pandemic has added a further layer of complexity, requiring more from every pharmacy leader in the organization. This survey aimed to explore the factors associated with burnout in VHA pharmacy

leadership positions during the COVID-19 pandemic and identify potential workplace factors resulting in burnout among pharmacy leadership. In 2018, a survey among healthcare executives found that nearly 60% of healthcare leaders felt at least some degree of burnout, which is similar to the findings in our study. 10 Further, nearly 65%

^aData shown as No. (%).

^bFor the single-item measures, burnout was defined as a score of ≥4 (ie, a frequency of once a week or more).

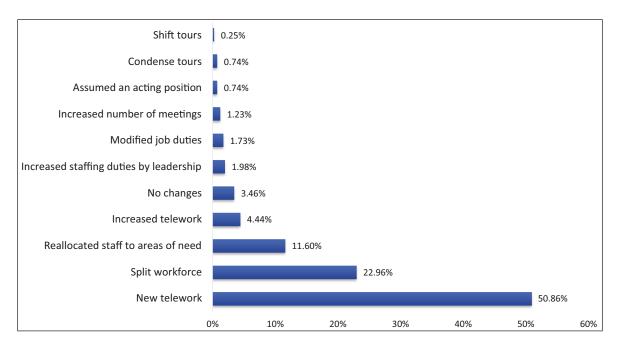
[°]Significance was set at $P \le 0.05$.

dRelative to the control group.

^eNot performed because of the small sample size.

Not performed because it was addressed in earlier analysis.

Figure 5. Changes made to the workplace as a response to the coronavirus disease 2019 (COVID-19) pandemic reported by Veterans Health Administration leadership survey respondents.



of pharmacy leaders in our study had a high score for emotional exhaustion, which is the subscale most commonly reported in studies evaluating burnout in pharmacists.11 It is especially concerning that half the respondents met the criteria for burnout in depersonalization, which is congruent with previously published data in pharmacy staff, providing further support for the sustained and prolonged professional burnout observed in pharmacy. 4,6,12 The impact of burnout on healthcare systems is staggering and has led to calls to action to address burnout in healthcare professionals.13

The number of direct reports assigned to each leadership position will vary greatly depending on a variety of factors, including the medical facility's complexity. However, supervisory positions often have the most direct reporting, with the number of direct reports decreasing as associate chiefs of pharmacy, chiefs of pharmacy, and VPEs assume more leadership duties. Despite this, burnout rates were similar across characteristics such as gender, age, and leadership position. The similarity in burnout rates between female and male pharmacy leaders provides

further support for WHO's definition of burnout syndrome, which states that employment factors are more related to burnout than individual characteristics. 14 Although the respondents were predominantly female, the percentage of female respondents (55.3%) was still somewhat lower than the overall percentage of females in the VHA pharmacist workforce (67%), which may have falsely impacted our results. Interestingly, there was also no difference in burnout rates when stratifying by the number of years respondents had worked in their current leadership position. However, a lack of assessment of the total number of years respondents had worked in VHA may have falsely skewed our results. This could be a potential area for future study to identify long-standing burnout risk and the impact of emotional well-being on career decisions. Nearly three-quarters of our pharmacy leaders indicated that they had been in their current position for 9 years or less, further supporting the need to proactively protect the well-being of our healthcare system leaders to retain high-functioning individuals in their positions.

The number of hours worked per week was associated with burnout: pharmacy leaders who self-reported working more than 60 hours a week were found to have a significantly higher rate of burnout than those who worked 40 to 60 hours a week. When factors impacting burnout were considered, our respondents indicated that workload and resolving interpersonal/ staff conflicts were related to burnout in pharmacy leaders, as also supported by previous studies.^{5,12} Research has also shown work overload to have a consistent relationship with burnout, with a critical point occurring when individuals are unable to recover from the demands of their work.14 Avoiding task redundancy, limiting professional work hours, promoting mentor-mentee relationships, and employing cognitive behavioral and relaxation methods have all been found to help prevent and minimize burnout.15,16

The COVID-19 pandemic forced pharmacy leaders to adapt their departments rapidly to avoid impact on the quality of patient care. In a recent study, 47% of pharmacists in a healthcare system reported currently having burnout, of whom nearly half

indicated that their burnout was related to the pandemic.12 In our survey, respondents who reported an increased number of hours worked per week due to COVID-19 had significantly more burnout than those who reported no impact on their workload. The top 3 most common changes in response to COVID-19 to VHA pharmacy departments across the nation were an increase in or establishment of telework agreements, splitting of the workforce, and reallocation of staff to areas of need. This finding aligns with previously reported increased pharmacist workloads during the COVID-19 pandemic. Furthermore, pharmacy leaders may have been more frequently reassigned to other responsibilities than usual, resulting in less time for tasks expected to provide professional fulfillment, such as mentor-mentee relationships, quality improvement projects, or the development of new clinical services. Over half of the surveyed VHA pharmacy leaders agreed that VHA's response to COVID-19 sustained their trust in their employer. Similarly, when asked about the effect of the COVID-19 pandemic on their confidence levels, over half of VHA pharmacy leaders disagreed that the pandemic had caused them to question their leadership skills, further demonstrating their resilience and confidence in VHA.

Although the survey had a 39.6% response rate, it is crucial to note that several people on the email list did not meet the inclusion criteria. The investigators were unable to sort the list before delivering the survey instrument because they were blinded to the identity of the individuals on the list. One of the first questions on the survey required participants to select their leadership position from a list of options. They were unable to complete the survey if their current title did not meet the inclusion criteria. As this questionnaire was voluntary, both selection bias and response bias are plausible; respondents who were concerned about their risk of burnout may have been more likely to complete the survey than those who were not. On the other hand, pharmacy leaders not participating in the survey because of a high level of burnout may have resulted in underreporting. Nevertheless, assessing burnout rates to monitor the mental well-being of our healthcare leaders is critical, especially in a workforce that was already experiencing shortages before the COVID-19 pandemic.

Identification of institutional and employment characteristics that may be driving burnout in pharmacy leadership is an important consideration as burnout undoubtedly has a significant impact on pharmacists, patients, and the healthcare system. Future work is required to identify optimal interventions to prevent and reduce burnout in our pharmacy executives. This report adds to the growing literature supporting recent calls within the pharmacy profession to address burnout much earlier in a pharmacist's career through the promotion of resilience and well-being.

Conclusion

According to the findings of this national survey, as of March 2021, two-thirds of VHA pharmacy leaders were experiencing burnout. These findings emphasize the need to prevent and decrease burnout among healthcare executives. Continuing the conversation to highlight the prevalence of burnout among our healthcare professionals is critical to retaining valuable health-system pharmacy leaders and improving the care we provide to our patients.

Disclosures

Dr. Ourth serves as an associate editor for *AJHP*. The other authors have declared no potential conflicts of interest.

Additional information

The views expressed are those of the authors and do not necessarily reflect the views or policies of the Department of Veterans Affairs.

References

Shanafelt TD, Boone S, Tan L, et al.
Burnout and satisfaction with work-life balance among US physicians relative

- to the general US population. *Arch Intern Med.* 2012;172(18):1377-1385. doi:10.1001/archinternmed.2012.3199
- 2. Salyers MP, Bonfils KA, Luther L, et al. The relationship between professional burnout and quality and safety in healthcare: a meta-analysis. *J Gen Intern Med.* 2017;32(4):475-482. doi:10.1007/s11606-016-3886-9
- 3. Jones AM, Clark JS, Mohammad RA. Burnout and secondary traumatic stress in health-system pharmacists during the COVID-19 pandemic. *Am J Health-Syst Pharm.* 2021;78(9):818-824. doi:10.1093/ajhp/zxab051
- 4. Kang K, Absher R, Granko RP. Evaluation of burnout among hospital and health-system pharmacy technicians in North Carolina. *Am J Health-Syst Pharm.* 2020;77(24):2041-2042. doi:10.1093/ajhp/zxaa315
- 5. Hall LH, Johnson J, Watt I, Tsipa A, O'Connor DB. Healthcare staff wellbeing, burnout, and patient safety: a systematic review. *PLoS One*. 2016;11(7):e0159015. doi:10.1371/ journal.pone.0159015
- 6. Durham ME, Bush PW, Ball AM. Evidence of burnout in healthsystem pharmacists. *Am J Health-Syst Pharm.* 2018;75(23 suppl 4):S93-S100. doi:10.2146/ajhp170818
- 7. Rinne ST, Mohr DC, Swamy L, Blok AC, Wong ES, Charns MP. National burnout trends among physicians working in the Department of Veterans Affairs. *J Gen Intern Med.* 2020;35(5):1382-1388. doi:10.1016/j. jamcollsurg.2010.11.006
- West CP, Dyrbye LN, Satele DV, Sloan JA, Shanafelt TD. Concurrent validity of single-item measures of emotional exhaustion and depersonalization in burnout assessment. *J Gen Intern Med.* 2012;27(11):1445-1452. doi:10.1007/s11606-012-2015-7
- Harris PA, Taylor R, Thielke R, Payne J, Gonzalez N, Conde JG. Research Electronic Data Capture (REDCap)—a metadata-driven methodology and workflow process for providing translational research informatics support. *J Biomed Inform*. 2009;42(2):377-381. doi:10.1016/j.jbi.2008.08.010
- Wittkieffer. The Impact of Burnout on Healthcare Executives. Wittkieffer; 2018. https://www.wittkieffer.com/webfoo/ wp-content/uploads/Burnout-Survey-Report_2019_Final_New-Logo.pdf
- Ball AM, Schultheis J, Lee HJ, Bush PW. Evidence of burnout in critical care pharmacists. *Am J Health-Syst Pharm*. 2020;77(10):790-796. doi:10.1093/ajhp/ zxaa043
- 12. Johnston K, O'Reilly CL, Scholz B, Georgousopoulou EN, Mitchell I.

- Burnout and the challenges facing pharmacists during COVID-19: results of a national survey. *Int J Clin Pharm.* 2021;43(3):716-725. doi:10.1007/s11096-021-01268-5
- 13. Dyrbye LN, Shanafelt TD, Clinic M, et al. Burnout among health care professionals: a call to explore and address this underrecognized threat to safe, high-quality care. NAM Perspectives. Published July 5, 2017.
- Accessed August 1, 2021. https://nam.edu/burnout-among-health-care-professionals-a-call-to-explore-and-address-this-underrecognized-threat-to-safe-high-quality-care/
- 14. Maslach C, Leiter MP. Early predictors of job burnout and engagement. J Appl Psycol. 2008;93(3):498-512. doi:10.1037/0021-9010.93.3.498
- 15. Maslach C, Schaufeli WB, Leiter MP. Job burnout. *Annu Rev Psychol*.

- 2001;52:397-422. doi:10.1146/annurev. psych.52.1.397
- 16. Johnson J, Wood AM. Integrating positive and clinical psychology: viewing human functioning as continua from positive to negative can benefit clinical assessment, interventions and understandings of resilience. *Cognit Ther Res.* 2017;41(3):335-349. doi:10.1007/s10608-015-9728-y