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# Predictors of VA Primary Care Clerical Staff Burnout Using the Job Demands-Resources Model

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**Abstract:** Primary care clerical staff may experience burnout if not adequately prepared and supported for patient-facing customer service tasks. Guided by the Job Demands-Resources (JD-R) model, we use national survey data from 707 primary care clerks at 349 VA clinics (2018; response rate: 12%) to evaluate associations between clerks' perceptions of tasks, work environment, training, and burnout. We found challenges with customer-facing tasks contribute to higher burnout, and supportive work environment was associated with lower burnout. Although perceptions of training were not associated with burnout, our results combined with the JD-R model suggest that customer service training may protect against burnout. **Key words:** burnout, clerks, Job Demands-Resources model, medical support assistants, primary care

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**B** URNOUT in health care workers has been recognized by the World Health Organization (2019) and the American Medical Association (Linzer et al., 2015) as a serious occupational health issue with negative repercussions for workforce retention (Sinsky et al., 2013), costs (Han et al., 2019), quality (Tawfik et al., 2019), and patient experience (Chung et al., 2020). Burnout is generally described as a work-related syndrome (Schaufeli et al., 2009) characterized by emotional exhaustion (eg, depletion of

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energy; enduring physical, affective, or cognitive strain), disengagement (eg, lack of personal connection to or cynical attitudes toward work tasks, colleagues, and patients), and a low sense of personal accomplishment or achievement due to unrewarding encounters or situations (Bakker & Demerouti, 2007; Bakker et al., 2004; Demerouti et al., 2010; Maslach et al., 2001; Ramirez-Baena et al., 2019; Scanlan & Still, 2019; Shanafelt & Noseworthy, 2017). A growing literature has documented factors contributing to (and the consequences of) burnout in primary care providers (Abraham et al., 2020) and nurses (Ramirez-Baena et al., 2019; van Bogaert et al., 2010), but few studies have examined factors associated with burnout in primary care clerical assistants (clerks) (Helfrich et al., 2017). Similar to other primary care disciplines, burned out primary care clerks, like other burned out employees, are more likely to leave their jobs (Linzer, 2009; Shanafelt & Noseworthy, 2017; van Bogaert et al., 2010), take sick leave, and suffer from depression (Sargent et al., 2011; Shanafelt & Noseworthy, 2017). As the first and last point of contact with patients, clerks also have the potential to impact patient primary care experiences, in particular patient satisfaction with telephone and scheduling practices (Griffith et al., 2019; Solimeo et al., 2016).

Recent studies highlight the difficult tasks of private sector clerks (Hammond et al., 2013). In team-based care models, such as the patient-centered medical home (PCMH), the clerk role has evolved to include assisting patients as navigators and health coaches (Chapman & Blash, 2017) and supporting the team with population health management (eg, identifying patients eligible for preventive screenings, extracting information from electronic health records) (Chapman & Blash, 2017; Chapman et al., 2018; Fraher et al., 2021; Griffith et al., 2019; Neuwelt et al., 2016). Clerks interact with patients in the public spaces of clinics and often know more about patients' personal lives than clinical team members (Solimeo et al., 2016). The Job Demands-Resources (JD-R) model posits that, if not adequately trained and prepared to take on these patient-facing "customer service" roles, clerks could become burned out and/or negatively impact patient experience (Bakker & Demerouti, 2007; Bakker et al., 2004; Demerouti et al., 2001). According to the JD-R model, job demands are multidimensional (eg mental, emotional, physical), contributing to job-related stress and higher burnout. Job-appropriate resources, such as training and supportive work environment, can help workers manage job demands, alleviating burnout (Demerouti et al., 2001; Falco et al., 2018; Jourdain & Chênevert, 2010).

As with private sector team-based care models, the Veterans Administration's (VA's) PCMH model, initiated in 2010 (Klein, 2011), expanded the role of clerks on the PCMH team. VA's PCMH model encourages task shifting that is specifically designed to empower less skilled workers (licensed practical nurses [LPNs]/licensed vocational nurses [LVNs], clerks) to work the top of their skill sets (True et al., 2014). "Teamlets" include a primary care clinician (physician/physician assistant/nurse practitioner), a registered nurse, a clinical associate (LPN/LVN), and an unlicensed clerk (called medical support assistant, or MSA) who are responsible for a continuity panel of approximately 1200 patients. MSAs are not clinicians. They are unlicensed administrative staff working in primary care. MSAs are considered fully engaged team members with the corresponding accountability for patient panels (Solimeo et al., 2016). Training and available resources to support their role, however, may be inadequate and contribute to perceptions of not being valued as team members (McGowan et al., 2021).

More evidence is needed to identify factors contributing to MSA burnout in order to determine how to direct resources to improve their burnout. Guided by the JD-R model, our objective was to examine the relationship between job demands (tasks), job resources (work environment, training), and burnout among VA primary care MSAs. We hypothesize that MSA customer-facing tasks are job demands associated with a greater likelihood

of report of burnout while training and work environment are resources associated with a lower likelihood of burnout.

#### **METHODS**

#### Study design

We analyzed cross-sectional data from the 2018 VA national provider and staff survey (n = 707; response rate = 12%). All primary care personnel with assigned patient panels (n = 32748) were invited by e-mail to complete the online survey, with e-mail reminders sent approximately every 2 weeks (4 in total). In total, 5803 completed the survey (17.7%), representing 349 medical center- and community-based outpatient clinics. This study received designation as a quality improvement project by VA Office of Primary Care and was exempt from institutional board review.

#### Study population

The analysis sample included administrative associates, or MSAs (n=685), at all VA primary care clinics. We excluded administrative associates who identified as telephone MSAs, health technicians, or other administrative personnel (n=22).

#### **Measures**

Our outcome variables were 2 measures of level and frequency of burnout. We used a one-item measure of burnout level from the Physician Work Life Survey, which was previously validated in physicians and other medical staff (Dolan et al., 2015; Edwards et al., 2018; Williams et al., 1999). "Overall, based on your definition of burnout, how would you rate your level of burnout at work?" Response options included the following: (a) I enjoy my work. I have no symptoms of burnout; (b) Occasionally, I am under stress, and I don't always have much energy as I once did, but I don't feel burned out; (c) I am definitely burning out and have 1 or more symptoms of burnout, such as physical and emotional exhaustion; (d) The symptoms of burnout that I'm experiencing won't go away.

I think about frustration at work a lot; and (e) I feel completely burned out and often wonder if I can go on. I am at the point where I may need some changes or may need to seek some sort of help. For analysis, we dichotomized burnout level as experiencing 1 or more symptoms (c-e) = 1 and no burnout symptoms (a, b) = 0.

Frequency of burnout was measured using a single item from the Maslach Burnout Inventory (Maslach et al., 2001; Rohland et al., 2004; Schaufeli et al., 2009): "I feel burned out from my work." Responses were measured on a 7-point scale: 0 = never; 1 = a few times a year or less; 2 = once a month or less; 3 = a few times a month; 4 = once a week; 5 = a few times a week; and 6 = every day. For analysis, we dichotomized frequency of burnout as once per week or more = 1 and less than once per week = 0, based on established cutoffs (Dolan et al., 2015; Edwards et al., 2018).

Predictors included measures of job demands (tasks) and job resources (training, work environment) (Table 1). For job demands (tasks), we included 5 items assessing challenges with specific tasks: (1) Timely receipt of patient messages from the call center; (2) Scrubbing appointments made by call center (eg, rescheduling appointments if a return visit is scheduled too soon, appointment made with a wrong primary care provider, PCMH team could resolve issue by telephone); (3) Fielding calls or requests from patients who cannot reach their VA specialists; (4) Fielding calls or requests from patients who cannot reach their VA community care providers; and (5) Attending to any unanticipated need for either your assigned or unassigned patient. Responses were measured on a 5-point scale ("not at all challenging," "slightly challenging," "somewhat challenging," "moderately challenging," or "extremely challenging") and dichotomized for analysis (moderately or extremely challenging = 1; not at all, slightly, or somewhat challenging = 0).

Job resources were operationalized as perceptions of adequate training for the MSA role and perceptions of supportive work

**Table 1.** Characteristics of VA Primary Care Medical Support Assistants (N = 685)

	% (n) or Mean (SD)
Level of burnout	
I enjoy my work/Occasionally, I am under stress	59.1% (409)
I am definitely burning out/The symptoms of burnout	39.9% (276)
won't go away/I feel completely burned out Frequency of burnout	
Never/A few times a year or less/Once a month or less/A	62.9% (431)
few times a month	02.9% (431)
Once a week/A few times a week/Every day	36.4% (254)
Job demands: Challenging tasks	30.4% (234)
Timely receipt of patient messages from the call center (phone/e-mail/	(instant messenger)
Not/Slightly/Somewhat challenging	65.5% (466)
Moderately/Extremely challenging	25.1% (171)
Missing	6.5% (48)
Scrubbing appointments made by the call center (eg, return visit too s	
wrong clinician, PCMH teamlet could resolve issue by phone)	oon, appointment with a
Not/Slightly/Somewhat challenging	50.4% (354)
Moderately/Extremely challenging	35.8% (247)
Missing	10.9% (84)
Fielding calls or requests from patients who cannot reach their VA spe	
Not/Slightly/Somewhat challenging	52.6% (368)
Moderately/Extremely challenging	37.1% (263)
Missing	7.4% (54)
Fielding calls or requests from patients who cannot reach their commu	
Not/Slightly/Somewhat challenging	48.8% (345)
Moderately/Extremely challenging	34.0% (245)
Missing	14.3% (95)
Attending to any unanticipated need for either your assigned or unassi	
Not/Slightly/Somewhat challenging	59.8% (421)
Moderately/Extremely challenging	28.9% (200)
Missing	8.4% (64)
Job resources: Training	
Proportion of time each week typically spent doing work well matche	d to training
None/<25%/25%-49%/50%-74%	20.4% (147)
≥75%	75.4% (526)
Missing	1.3% (12)
"I receive the education and training I need to function at the top of m	y scope of practice"
(somewhat agree/agree)	
Disagree/Somewhat disagree/Neither agree nor disagree	21.3% (156)
Somewhat agree/Agree	75.1% (521)
Don't know	0.8% (8)
lob resources: Work environment	
Type of PCMH where/on which most time is spent	
Primary care	87.9% (601)
Other PCMH (geriatrics, homeless, serious mental illness)	11.6% (84)
Missing	0.5% (5)
Team Interactions Scale (range, 1-5)	
Strongly disagree $= 1$ to Strongly agree $= 5$ , mean (SD)	4.0 (1.02)
	(continues

**Table 1.** Characteristics of VA Primary Care Medical Support Assistants (N = 685) (Continued)

	% (n) or Mean (SD)
"My unique skills and talents are valued and utilized working with	members of this team"
No (very inaccurate/somewhat inaccurate/neither	26.7% (190)
accurate nor in accurate)	
Yes (somewhat accurate/accurate)	70.4% (495)
Staffing changes in PCMH teamlet within the past 12 mo	
No	32.3% (226)
Yes	58.1% (414)
Missing	9.6% (45)
Demographics	
Age	
<40 y	20.6% (187)
≥40 y	73.7% (461)
Missing	6.2% (37)
Gender	
Male	23.5% (155)
Female	70.4% (489)
Missing	6.1% (41)
Race/Ethnicity	
Non-Hispanic White	58.3% (437)
Non-Hispanic Black	16.0% (87)
Spanish, Hispanic, Latino	8.9% (58)
Other/Multirace	8.3% (66)
Missing	5.7% (37)
Tenure in PCMH MSA role	
≤2 y	34.9% (252)
>2 y	63.5% (424)
Missing	1.6% (9)

Abbreviations: MSA, medical support assistant; PCMH, patient-centered medical home; VA, Veterans Administration.

environment. For training, we included one item assessing perceptions of "fit" between training and work: "What portion of your time each week do you typically spend doing work that is well matched to your training?" We created a dichotomous measure to ease interpretation of results indicating 75% or more of time spent on work well matched to training. A second measure assessed self-reported receipt of "the education and training I need to function at the top of my scope of practice," measured on a 5-point scale, dichotomized to facilitate interpretation of results to indicate agree, somewhat agree = 1, and neither agree nor disagree, somewhat disagree, disagree = 0.

For supportive work environment, we included 2 measures of teamwork. We used a one-item measure of perceived team con-

tributions, "My unique skills and talents are valued and utilized working with members of this team," dichotomized to facilitate interpretation of results as very accurate or somewhat accurate = 1 and neither accurate nor inaccurate, somewhat inaccurate, or very inaccurate = 0. To assess quality of teamwork, we used an index composed of the average of 4 items measured on a 5point Likert-type scale ("strongly disagree" to "strongly agree"): (a) The longer we work together as a team, the better we do; (b) Working together energizes and uplifts members of our team; (c) There is very little unpleasantness among members of this team; and (d) Every time team members seek to correct a teammate's unacceptable behavior, things seem to get better rather than worse.

#### **Covariates**

On the basis of univariate distribution showing small cell sizes for some older age groups and bivariate results showing similar patterns for age 40 years and above, we dichotomized age at 40 years (<40 years,  $\geq$ 40 years). Other covariates included gender (male, female), race/ethnicity (non-Hispanic White; non-Hispanic Black; Spanish/Hispanic/Latino; and Other/Multirace), Patient Aligned Care Team (PACT) (PCMH) tenure ( $\leq$ 2 years, >2 years), PCMH team type (standard vs specialized), and team stability (indicator for change/loss of team members in past 12 months) (Table 2).

#### Statistical analysis

We used univariate analysis to describe the sample characteristics. We conducted bivariate analysis to determine associations between each predictor variable and the covariates with the burnout measures. For the multivariate models, we used logistic regression, with cluster adjustment to account for clustering within clinics, and included all predictor variables that were significantly associated with one or both burnout measures in the bivariate analysis. Odds ratios (ORs) and 95% confidence intervals (CIs) were estimated on respondents having observed data for all measures of interest. All analyses were performed using STATA 15.1 software and were weighted for nonresponse.

#### **RESULTS**

#### **Description of MSAs**

Table 1 shows sample characteristics. Of note, 39.9% report moderate to high levels of burnout and 36.4% report experiencing burnout once per week or more often. The percent reporting challenges with tasks ranged from 25.1% to 37.1%, depending on the task. A majority reported good fit between training and tasks, and positive perceptions of the work environment. Most MSAs worked in a primary care PCMH (87.7%) with 2 years or more years of tenure (63.5%). The majority were 40 years or older

(73.7%), female (70.4%), and non-Hispanic White (58.3%).

# Bivariate results: Job demands— and job resources—associated frequency and level of MSA burnout

For the bivariate regression results (Table 2), we found that job demands (moderately/extremely challenging tasks) were associated with a higher likelihood of extent and frequency of burnout. For job resources (training), MSAs indicating that their typical weekly work was well matched to their training had a lower likelihood of reporting either moderate/extreme (OR = 0.47; 95% CI, 0.31-0.73) or frequent burnout (OR = 0.56; 95% CI, 0.36-0.85). MSAs indicating they received education and training needed to function at the top of their scope of practice also had a lower likelihood of reporting either moderate/extreme (OR = 0.42; 95% CI, 0.28-0.64) or frequent burnout (OR = 0.46; 95% CI, 0.31-0.69). For other job resources measures (eg, work environment), MSAs reporting better teamwork (OR = 0.68; 95% CI, 0.57-0.81) and valued as a contributing team member (OR = 0.48; 95% CI, 0.33-0.70) had a lower likelihood of reporting moderate/ severe or frequent burnout. We found that PCMH tenure of more than 2 years was associated with a higher likelihood of moderate/ severe burnout (OR = 2.33; 95% CI, 1.38-3.93). MSAs reporting changes in staff in their PCMH team during the past 12 months had a higher likelihood of reporting either moderate/extreme (OR = 1.70; 95% CI, 1.14-2.53) or frequent burnout (OR = 1.69; 95% CI, 1.15-2.48). We found no statistically significant relationships between demographic characteristics and moderate/extreme or frequent burnout.

## Results for multivariate logistic regression analyses

The multivariate logistic regression analysis results (Table 2) indicated that job demands (eg, tasks MSAs reported as moderately/extremely challenging) were associated with a higher likelihood of moderate/extreme or burnout. Scrubbing appointments

**Table 2.** Bivariate and Multivariate Logistic Regressions Predicting Burnout Level and Burnout Frequency for PCMH Medical Support Assistants (N = 684)<sup>a</sup>

	<u> </u>	Rivariate	Mul	Multivariate
Predictor	Burnout Level, OR (95% CI)	Burnout Frequency, OR (95% CI)	Burnout Level, OR (95% CI)	Burnout Frequency, OR (95% CI)
Job demands: Moderately/Extremely challenging tasks				
Patient messages <sup>b</sup>	3.23 (2.03-5.14)***	3.56 (2.28-5.56)**	1.61 (0.96-2.72)	1.74 (1.05-2.88)*
Scrubbing appointments <sup>c</sup>	3.64 (2.52-5.24)***	2.85 (1.86-4.37)***	1.88 (1.21-2.97)**	1.36 (0.87-2.13)
Patients who cannot reach VA specialists <sup>d</sup>	3.26 (2.28-4.68)***	3.71 (2.60-5.28)***	1.22 (0.77-1.93)	1.90 (1.21-3.01)**
Patients who cannot reach community care providers <sup>e</sup>	3.27 (2.15-4.97)***	2.89 (1.96-4.24)***	0.68 (0.40-1.13)	0.78 (0.47-1.29)
Unanticipated needs <sup>f</sup>	3.56 (2.33-5.44)***	3.24 (2.09-5.02)***	1.58 (1.01-2.49)*	1.70 (1.08-2.68)*
Job resources: Training				
Work to training <sup>8</sup>	0.47 (0.31-0.73)***	0.56 (0.36-0.85)**	0.68 (0.40-1.13)	0.78 (0.47-1.29)
Educationh	0.42 (0.28-0.64)***	0.46 (0.31-0.69)***	0.94 (0.56-1.58)	0.80 (0.48-1.34)
Job resources: Work environment				
Primary care team interactions <sup>1</sup>	0.68 (0.57-0.81)***	0.75 (0.62-0.89)**	0.79 (0.62-0.99)*	0.68 (0.42-1.11)
Unique skills/talents utilized	0.48 (0.33-0.70)***	0.64 (0.44-0.94)*	0.68 (0.42-1.11)	1.02 (0.63-1.65)
Demographics				
PCMH tenure >2 y	2.33 (1.38-3.93)"	1.30 (0.83-2.04)	2.09 (1.17-3.72)*	1.02 (0.62-1.68)
Race/Ethnicity				
Non-Hispanic White	Reference	Reference		
Non-Hispanic Black	0.97 (0.59-1.59)	1.10 (0.62-1.93)	≚.:	×
Spanish/Hispanic/Latino	1.46 (0.79-2.69)	1.65 (0.93-2.91)	≚:	≃.:
Other/Multirace	0.75 (0.43-1.32)	1.02 (0.52-1.10)	≚.:	≅.:
Primary care PCMH	1.37 (0.79-2.37)	1.27 (0.72-2.24)	≚.:	≚.:
PCMH team changes <sup>1</sup>	1.70 (1.14-2.53)**	1.69 (1.15-2.48)"	1.39 (0.93-2.07)	1.40 (0.93-2.12)

Care Team; PCMH, patience interval; OR, odds ratio; PACT; Patient Aligned Care Team; PCMH, patient-centered medical home; VA, Veterans Administration.

<sup>&</sup>lt;sup>a</sup>Only statistically significant odds ratios are displayed for multivariate analysis:  $^*P < .05$ ;  $^{**}P < .01$ ;  $^{***}P < .001$ .

<sup>&</sup>lt;sup>b</sup>Timely receipt of patient messages made by the call center (phone/e-mail/instant messenger)

Scrubbing appointments made by the call center (eg, return visit too soon, appointment with a wrong clinician, PCMH teamlet could resolve issue by phone)

d Fielding calls or requests from patients who cannot reach their VA specialist.

Flielding calls or requests from patients who cannot reach their community care providers.

 $<sup>^{8}</sup>$  Portion of time each week typically spent doing work well matched to training ( $\geq$ 75%). Attending to any unanticipated need for assigned or unassigned patients.

<sup>&</sup>lt;sup>h</sup>Received education and training needed to function at the top of the scope of practice.

Primary care PCMH team interactions (scale).

<sup>&</sup>quot;My unique skills and talents are valued and utilized working with members of this team" (very accurate).

Race/Ethnicity and primary care PACT were not significant in the bivariate results; therefore, we did not include them in the multivariate model. PCMH team changes in the past 12 months (yes).

(optimizing clinician schedules, eg, return visit too soon, appointment with a wrong clinician, PACT teamlet could resolve issue by phone) made by call centers (OR = 1.88; 95%CI, 1.21-2.94) were significantly associated with a higher likelihood of reporting moderate/severe burnout. Timely receipt of patient messages from the call center (OR = 1.74; 95% CI, 1.05-2.88) and fielding calls from patients who cannot reach their VA specialists (OR = 1.90; 95% CI, 1.21-3.01) were significantly associated with a higher likelihood of reporting frequent burnout. MSAs reporting moderate/extreme challenges attending to any unanticipated need for assigned or unassigned patients were associated with a higher likelihood of reporting moderate/severe burnout (OR = 1.58; 95% CI, 1.01-2.49) and frequent burnout (OR = 1.70; 95% CI, 1.08-2.68). In the multivariate analyses, we did not find any association between training and burnout. For work environment, we found that MSAs rating teamwork more positively had a lower likelihood of burnout (OR = 0.79; 95% CI, 0.62-0.99). PCMH tenure of more than 2 years was also associated with a high likelihood of moderate/severe burnout (OR = 2.09; 95% CI, 1.17-3.72).

#### **DISCUSSION**

The results of our analysis were a mix of the expected and the unexpected. As we hypothesized, per the JD-R model, certain tasks reported as moderately/extremely challenging were associated with greater burnout and some job resources (work environment) were protective against burnout. We found no evidence that training, as measured here, was associated with burnout. However, longer tenure and staff changes contributed to MSA burnout. Curiously, MSAs reported good fit between training and tasks; yet, in our model, training did not protect against burnout. We suspect that the training may address technical dimensions of tasks but may not address emotional ones.

Our results expand on the distinction made in the JD-R model between different dimensions of tasks frequently performed by MSAs

in which they suggest that technical training may not be adequate for supporting customer-facing tasks with emotional components. Working typically as front office staff, MSAs are often stationed in relatively public spaces of primary care clinics, exposing them to frustrated patients. Solimeo et al. (2016) identified MSAs work in the public space of the reception area, where they diffuse charged conversations that interrupt the "real" care provided in private examination rooms, as a type of emotional dirty work. Tasks predictive of MSA burnout are those requiring direct patient interactions to assist veterans in obtaining needed services in appropriate times and manners. Challenges with these tasks, for example, processing patient messages, rescheduling appointments, retrieving calls from patients trying to reach their providers, and attending to unanticipated needs, may also expose MSAs to frustrated or angry patients. Ward and McMurray (2011) have identified the intensity of emotional spectrum with which MSAs are faced and must cope daily. Patients may hold MSAs accountable for situations that they can resolve but rarely cause (eg, denied appointments at desired times, rescheduling when physicians are absent) (Solimeo et al., 2016, 2017). Resources such as training may mitigate some work demands/stressors (eg, technical/mechanical) but not all (eg, psychological/emotional) that may influence burnout.

For supportive work environment, we found that perceptions of higher-quality team interactions were associated with a lower likelihood of moderate/severe burnout. but team contribution (eg, perception that unique skills and training are valued by the team) was not associated with either burnout measure. This finding suggests that good relationships among team members are a resource that could prevent jobrelated burnout, which supports the JD-R model. It could also suggest that highly functional teams might be better at distributing/ managing workload so that their team members do not get overwhelmed, have fewer negative encounters, and may prevent burnout. Future studies should explore the

specific ways positive work environments reduce burnout, for example, managing workloads more equitably or developing positive workplace culture. In addition, studies should focus on the extent to which PCMH MSA training(s) prepare MSAs for the challenging aspects of customer service or training them with techniques to decompress after challenging patient encounters.

#### LIMITATIONS

The limitations of this study include a low response rate. Helfrich et al. (2017) found that nonresponse to the 2014 survey was associated with occupation, VA tenure, and clinic location for MSAs, those with longer VA tenure, and those at VA medical center-based clinics (as opposed to community-based clinics). The limited response rate of MSAs in this survey may have affected our findings. For example, it is possible that burned out MSAs were less likely to complete a survey and that we understated the prevalence of burnout. Future research is needed to better understand MSA work experience and burnout, as well as to understand such low MSA participation in surveys. Despite the low response rate, to our knowledge, this is the first national analysis of burnout among primary care MSAs and includes data from MSAs in 349 primary care clinics. Our findings may be relevant for health care systems nationally with similar patient populations. Another limitation may be potential bias due to unmeasured factors (eg, number of PCMH teams

to which MSAs are assigned, national variation in their scope of work). Our findings, however, substantially track with the relationships hypothesized in the JD-R model, frequently used to study burnout in other industries and settings.

#### **CONCLUSIONS**

The results of this study highlight the potential for burnout from tasks that may involve greater extent of emotional labor than previously considered. It enhances our understanding of the emotionally challenging aspects of clerical work and empirically demonstrates relationships building on prior qualitative literature (McGowan et al., 2021). Further studies should elucidate the different dimensions of PCMH MSA tasks (eg, technical vs emotional) and why these tasks are challenging. MSAs address veterans' frustrations and must frequently problem-solve for system failures that veterans experience. Further research into MSAs' work experience and veterans' encounters with MSAs is warranted, given that MSAs' work experience may be associated with worse patient ratings of care experiences (Griffith et al., 2019). Findings from this study suggest a need for more effective training strategies aimed at providing MSAs customer service skills that may mitigate level of and frequent burnout. Resources/training for customer service-related tasks delegated to PCMH MSAs may reduce burnout and contribute to better veterans' perceptions of access and their experience and ratings of care.

#### **REFERENCES**

Abraham, C. M., Zheng, K., & Poghosyan, L. (2020). Predictors and outcomes of burnout among primary care providers in the United States: A systematic review. Medical Care Research and Review, 77(5), 387-401. doi:10.1177/1077558719888427

Bakker, A. B., & Demerouti, E. (2007). The Job Demands-Resources model: State of the art. *Journal of Managerial Psychology*, 22(3), 309-328. doi:10.1108/02683940710733115

Bakker, A. B., Demerouti, E., & Verbeke, W. (2004). Using the Job Demands-Resources model to predict burnout and performance. *Human Resource Management*, 43(1), 83-104. doi:10.1002/hrm.20004

Chapman, S. A., & Blash, L. K. (2017). New roles for medical assistants in innovative primary care practices. *Health Services Research*, 52, 383-406. doi:10.1111/1475-6773.12602

- Chapman, S. A., Blash, L. K., & Spetz, J. (2018). California peer providers in transitions of care. *Healthforce Center at UCSF*, pp. 1–38.
- Chung, S., Dillon, E. C., Meehan, A. E., Nordgren, R., & Frosch, D. L. (2020). The relationship between primary care physician burnout and patient-reported care experiences: A cross-sectional study. *Journal* of General Internal Medicine, 35(8), 2357–2364. doi:10.1007/s11606-020-05770-w
- Demerouti, E., Mostert, K., & Bakker, A. B. (2010). Burnout and work engagement: A thorough investigation of the independency of both constructs. *Journal* of Occupational Health Psychology, 15(3), 209-222. doi:10.1037/a0019408
- Demerouti, E., Nachreiner, F., Bakker, A. B., & Schaufeli, W. B. (2001). The Job Demands-Resources model of burnout. *Journal of Applied Psychology*, 86(3), 499–512. doi:10.1037/0021-9010.86.3.499
- Dolan, E. D., Mohr, D., Lempa, M., Joos, S., Fihn, S. D., Nelson, K. M., & Helfrich, C. D. (2015). Using a single item to measure burnout in primary care staff: A psychometric evaluation. *Journal of General Internal Medicine*, 30(5), 582-587. doi:10.1007/s11606-014-3112-6
- Edwards, S. T., Helfrich, C. D., Grembowski, D., Hulen, E., Clinton, W. L., Wood, G. B., ... Stewart, G. (2018). Task delegation and burnout trade-offs among primary care providers and nurses in Veterans Affairs Patient Aligned Care Teams (VA PACTs). *Journal of the American Board of Family Medicine*, 31(1), 83-93. doi:10.3122/jabfm.2018.01.170083
- Falco, A., Dal Corso, L., Girardi, D., de Carlo, A., & Comar, M. (2018). The moderating role of job resources in the relationship between job demands and interleukin-6 in an Italian healthcare organization. Research in Nursing and Health, 41(1), 39-48. doi:10.1002/nur.21844
- Fraher, E. P., Cummings, A., & Neutze, D. (2021). The evolving role of medical assistants in primary care practice: Divergent and concordant perspectives from MAs and family physicians. *Medical Care Research and Review*, 78(1, Suppl.), 7S-17S. doi:10.1177/1077558720966148
- Griffith, K. N., Li, D., Davies, M. L., Pizer, S. D., & Prentice, J. C. (2019, September). Call center performance affects patient perceptions of access and satisfaction. *The American Journal of Managed Care*, 25(9), e282-e287.
- Hammond, J., Gravenhorst, K., Funnell, E., Beatty, S., Hibbert, D., Lamb, J., ... Chew-Graham, C. A. (2013). Slaying the dragon myth: An ethnographic study of receptionists in UK general practice. *British Journal of General Practice*, 63(608), e177-e184. doi:10.3399/bjgp13X664225
- Han, S., Shanafelt, T. D., Sinsky, C. A., Awad, K. M., Dyrbye, L. N., Fiscus, L. C., ... Goh, J. (2019). Estimating the attributable cost of physician burnout in the United States. *Annals of Internal Medicine*, 170(11), 784-790. doi:10.7326/M18-1422

- Helfrich, C. D., Simonetti, J. A., Clinton, W. L., Wood, G. B., Taylor, L., Schectman, G.,... Nelson, K. M. (2017). The association of team-specific workload and staffing with odds of burnout among VA primary care team members. *Journal of General Internal Medicine*, 32(7), 760-766. doi:10.1007/s11606-017-4011-4
- Jourdain, G., & Chênevert, D. (2010). Job demandsresources, burnout and intention to leave the nursing profession: A questionnaire survey. *International Journal of Nursing Studies*, 47(6), 709–722. doi:10.1016/j.ijnurstu.2009.11.007
- Klein, S. (2011, September 16). The Veterans Health Administration: Implementing patient-centered medical homes in the nation's largest integrated delivery system. New York, NY: The Commonwealth Fund.
- Linzer, M. (2009). Preventing burnout in academic medicine. Archives of Internal Medicine, 169(10), 927–928. doi:10.1001/archinternmed.2009.77
- Linzer, M., Guzman-Corrales, L., & Poplau, S. (2015). Physician burnout: Improve physician satisfaction and patient outcomes. Physician burnout: Improve physician satisfaction and patient outcomes. Retrieved from https://edhub.ama-assn.org/stepsforward/module/2702509
- Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001). Job burnout. Annual Review of Psychology, 52, 397-422.
- McGowan, M., Medich, M., Rose, D., & Stockdale, S. (2021). The unrecognized role of VA call center and primary care clerical staff in assisting patients with obtaining needed care. *Journal of General Internal Medicine*, 37(2), 390-396. doi:10.1007/s11606-021-06885-4
- Neuwelt, P. M., Kearns, R. A., & Cairns, I. R. (2016). The care work of general practice receptionists. *Journal of Primary Health Care*, 8(2), 122–129. doi:10.1071/HC15059
- Ramirez-Baena, L., Ortega-Campos, E., Gomez-Urquiza, J., Cañadas-De la Fuente, G., de la Fuente-Solana, E., & Cañadas-De la Fuente, G. (2019). A multicentre study of burnout prevalence and related psychological variables in medical area hospital nurses. *Journal of Clinical Medicine*, 8(1), 92. doi:10.3390/jcm8010092
- Rohland, B. M., Kruse, G. R., & Rohrer, J. E. (2004). Validation of a single-item measure of burnout against the Maslach Burnout Inventory among physicians. *Stress and Health*, 20(2), 75–79. doi:10.1002/smi.1002
- Sargent, M. C., Sotile, W., Sotile, M. O., Rubash, H., Vezeridis, P. S., Harmon, L., & Barrack, R. L. (2011). Managing stress in the orthopaedic family: Avoiding burnout, achieving resilience. *Journal of Bone* and *Joint Surgery-Series A*, 93(8), e40. doi:10.2106/ JBJS.J.01252
- Scanlan, J. N., & Still, M. (2019). Relationships between burnout, turnover intention, job satisfaction, job demands and job resources for mental health personnel in an Australian mental health service. *BMC Health Services Research*, 19(1), 62. doi:10.1186/s12913-018-3841-z

- Schaufeli, W. B., Leiter, M. P., & Maslach, C. (2009). Burnout: 35 years of research and practice. Career Development International, 14(3), 204–220. doi:10.1108/13620430910966406
- Shanafelt, T. D., & Noseworthy, J. H. (2017). Executive leadership and physician well-being: Nine organizational strategies to promote engagement and reduce burnout. *Mayo Clinic Proceedings*, *92*(1), 129–146. doi:10.1016/j.mayocp.2016.10.004
- Sinsky, C. A., Willard-Grace, R., Schutzbank, A. M., Sinsky, T. A., Margolius, D., & Bodenheimer, T. (2013). In search of joy in practice: A report of 23 high-functioning primary care practices. *Annals of Family Medicine*, 11(3), 272–278. doi:10.1370/afm.1531
- Solimeo, S. L., Ono, S. S., Stewart, K. R., Lampman, M. A., Rosenthal, G. E., & Stewart, G. L. (2017). Gatekeepers as care providers: The care work of patient-centered medical home clerical staff. *Medical Anthropology Quarterly*, 31(1), 97–114. doi:10.1111/maq.12281
- Solimeo, S. L., Stewart, G. L., & Rosenthal, G. E. (2016). The critical role of clerks in the patient-centered medical home. *Annals of Family Medicine*, *14*(4), 377–379. doi:10.1370/afm.1934
- Tawfik, D. S., Scheid, A., Profit, J., Shanafelt, T., Trockel, M., Adair, K. C., ... Ioannidis, J. P. A. (2019). Evidence relating health care provider burnout and quality of care a systematic review and meta-analysis. *Annals* of *Internal Medicine*, 171(8), 555-567. doi:10.7326/ M19-1152

- True, G., Stewart, G. L., Lampman, M., Pelak, M., & Solimeo, S. L. (2014). Teamwork and delegation in medical homes: Primary care staff perspectives in the Veterans Health Administration. *Journal of General Internal Medicine*, 29(Suppl. 2), 632–639. doi:10.1007/s11606-013-2666-z
- van Bogaert, P., Clarke, S., Roelant, E., Meulemans, H., & van de Heyning, P. (2010). Impacts of unit-level nurse practice environment and burnout on nurse-reported outcomes: A multilevel modelling approach. *Journal of Clinical Nursing*, *19*(11–12), 1664–1674. doi:10.1111/j.1365-2702.2009.03128.x
- Ward, J., & McMurray, R. (2011). The unspoken work of general practitioner receptionists: A re-examination of emotion management in primary care. *Social Science* and Medicine, 72(10), 1583–1587.
- Williams, E. S., Konrad, T. R., Linzer, M., McMurray, J., Pathman, D. E., Gerrity, M., ... Douglas, J. (1999). Refining the measurement of physician job satisfaction: Results from the Physician Worklife Survey. SGIM Career Satisfaction Study Group. Society of General Internal Medicine. *Medical Care*, 37(11), 1140–1154.
- World Health Organization. (2019, May 28). Burn-out an "occupational phenomenon": International Classification of Diseases. WHO News. Retrieved from https://www.who.int/news/item/28-05-2019-burn-out-an-occupational-phenomenon-international-classification-of-diseases