



# Professional Burnout of Psychiatrists in a Veterans Health Administration: Exploring the Role of the Organizational Treatment

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## Abstract

Psychiatrists in the Veterans Health Administration (VHA) are susceptible to professional burnout due to the unique needs of veterans combined with high organizational demands. The current study examined the mediating role of organizational factors in the direct relationship between providing primarily pharmacological intervention and professional burnout. Data from 125 VHA psychiatrists revealed that fair treatment by superiors and sufficient resources independently mediated the direct relationship that the percent of time devoted to pharmacological intervention had with emotional exhaustion and cynicism. Psychiatrists who feel unfairly treated and lack sufficient resources reported more professional burnout. Implications and future directions are discussed.

**Keywords** Veterans Health Administration · Burnout · Psychiatrists · Organizational factors

## Introduction

The Veterans Health Administration (VHA) is the largest integrated mental healthcare system in the United States, employing approximately 3000 psychiatrists. Professional burnout among mental health providers has been a focus

of attention given its impact on productivity and access to client care (Rupert and Morgan 2005). Mental health providers working in the VHA may be particularly susceptible to burnout due to the unique needs of the veteran population combined with high organizational pressure such as clinician control and autonomy, and availability of resources (Voss Horrell et al. 2011). Because psychiatrists play a critical role in meeting the mental and physical health needs of veterans at the VHA, it is important to better understand the impact of professional burnout in this population.

Professional burnout refers to the depletion of emotional resources and functional productivity of professionals in the workplace due to heightened personal, job, and organizational demands (Maslach 1982). Burnout is a developmental process that can start as early as an individual's training and results from repeated exposure to emotionally demanding experiences (Schaufeli and Buunk 1996). Using Christina Maslach's conceptualization, burnout includes three factors: exhaustion, cynicism, and professional efficacy. Exhaustion occurs when professionals experience a reduction in emotional energy due to workplace demands. Cynicism refers to increased detachment and depersonalization from work. Professional efficacy refers to increased effectiveness and competency in completing job duties (Maslach 1982). Despite conceptual consistency in what burnout is, the ways in which burnout manifests among professionals can be quite varied. For example, professionals feeling cynical of their work may

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demonstrate anger towards employers and staff (Rose et al. 2004) whereas others experiencing heightened exhaustion may be more likely to dwell on their client concerns outside the workplace (Rupert and Morgan 2005) emotionally when working with emotionally-demanding patients. Psychiatrists may be particularly susceptible to burnout not only related to their work with challenging clinical populations—for example, violent patients (Deahl and Turner 1997), or patients at high risk for suicide or homicide (Rathod et al. 2000)—but also in response to organizational factors such as a perceived loss of control over their work, and inconsistencies between their training experiences and job responsibilities (Kumar 2007).

Much of the literature on psychiatrist burnout comes from international research. Compared to other healthcare providers, psychiatrists reported more emotional exhaustion and distress than other physicians and psychiatric nurses in the Scotland and Finland (Deary et al. 1996) and more cynicism than other mental health or medical professionals in London (Onyett et al. 1997). Psychiatrists in New Zealand have also reported high levels of emotional exhaustion and cynicism (Kumar et al. 2012). Researchers examining professional burnout in the US has found psychiatrists in managed healthcare setting reported more emotional exhaustion and cynicism than other physicians (Snibbe et al. 1989), and endorsed higher burnout scores than psychologists in a military healthcare setting (Ballenger-Browning et al. 2011). While research among psychiatrists in VHA is limited, exploring the impact of burnout among VHA psychiatrists can help inform organization- and individual-level strategies to increase job satisfaction and work productivity.

To date, only one study has explored the prevalence and potential risk factors of burnout among psychiatrists in the VHA (Garcia et al. 2015). A heterogeneous sample of psychiatrists working in a variety of settings and serving veterans with a range of psychiatric concerns was evaluated. Findings suggest high levels of exhaustion and cynicism (86 and 90%, respectively) but also high levels of professional efficacy (74%) in this group. Psychiatrists who reported more exhaustion were more likely to endorse unfair treatment, insufficient resources, and higher number of times on call, whereas those who were more cynical about their work were less likely to feel part of a coherent team, had less protected time outside of patient care, and felt their patients were not getting better. Further, psychiatrists who had higher levels of exhaustion and cynicism were more likely to report an intention to leave the VHA.

Important questions remain, however, regarding potential mechanisms of burnout among psychiatrists in the VHA. Regarding job duties, VHA psychiatrists are qualified to prescribe medications, deliver brief psychotherapy, supervise trainees, provide after-hour services, and lead interdisciplinary treatment teams (Garcia et al. 2015). However, their

primary responsibility is the diagnosis and management of mental illness via pharmacotherapy (Bhugra et al. 2015), and the one prior study that examined correlates of VHA psychiatrist burnout found a positive association between the percent of time psychiatrists devote to pharmacotherapy and professional burnout (Garcia et al. 2015). Relatedly, Ranz et al. (1997) found psychiatrists who are restricted to prescribing medications resulted in lower job satisfaction compared to medical directors who provide consultation, training, and supervision in addition to patient care duties. These researchers speculated that psychiatrists are not afforded the time to utilize their breadth of training which may lead them to feel devalued in their positions. This finding is in line with the job demands-resources model, which highlights the discrepancy between workplace demands and organizational resources as an important source of stress (Bakker and Demerouti 2007). Although the VHA is a teaching institution designed to allow psychiatrists to utilize their breadth of practice, it is currently understaffed with psychiatrists (VA Office of Inspector General 2015) and pharmacotherapy is one of the most common services utilized in the VHA (~30% of veterans; RAND Study Team 2016). Thus, the high demand for pharmacotherapy coupled with the limited resources available may prevent VHA psychiatrists from utilizing their scope of practice. Therefore, it is important to determine if similar negative perceptions of the work environment partially account for the previously established link between the amount of time VHA psychiatrists devote to prescribing medication and burnout.

The growing number of veterans seeking mental health services at the VHA combined with the limited number of psychiatrists available to provide pharmacotherapy may lead to increased stress among VHA psychiatrists (VA Office of Inspector General 2015). Existing process models of burnout have linked work-setting characteristics (objective events) to burnout through workplace stressors (perceived troublesomeness; Cherniss 1980; Koeske and Koeske 1989, 1993). For psychiatrists specifically, Holloway et al. (2000) outlined an interactive model of the stress process to denote that external stressors lead to stressful outcomes through mediating or buffering factors. Common external stressors include limited resources, high work demands, role conflict, and managing suicidal and homicidal patients, among others (Deahl and Turner 1997; Garcia et al. 2015; Thompson 1998). Mediating factors such as poor social support and minimal coping may lead to burnout (Thompson 1998), whereas buffering factors such as positive performance appraisals and job promotions may mitigate burnout among psychiatrists (Kumar 2007). Therefore, the demands of providing pharmacotherapy to a growing number of veterans may lead to burnout through an array of personal, client, and workplace characteristics. However, this model has not been examined within the VHA.

For psychiatrists working at the VHA, it may be particularly important to consider the extent that bureaucratic/organizational factors (e.g., administrative interference in clinical care) account for the relationship between providing pharmacotherapy and burnout. In a study comparing VHA and community mental health staff, whereas VHA staff reported more job satisfaction, less emotional exhaustion, and more personal efficacy, they also endorsed more organizational issues, such as bureaucracy and policies, and identified such issues as the most challenging (Saylers et al. 2013). Although these findings may be appealing for VHA employment, the lack of within-group investigations among VHA providers may overlook their levels of burnout, as well as, the role organizational factors play on their daily tasks. The VHA has implemented a series of organizational changes over the past decade to improve veteran access to services which has directly impacted the duties and expectations of VHA psychiatrists (VA Office of Inspector General 2015). Following Holloway's stress process model, organizational factors may partially mediate the association between workload demands (i.e., pharmacotherapy) and professional burnout. For the current study, *organizational factors* refer to how employers are treated by the organization (e.g., workload demands and perceived autonomy) and the extent of support the organization provides to its employees (e.g., the fairness and rewards; Garcia et al. 2015).

The purpose of the current study was to expand on the research by Garcia et al. (2015) by examining the extent that patient care duties and organizational factors predict burnout in a sample of VHA psychiatrists. Existing literature has identified workplace demands as one predictor of burnout among psychiatrists in a range of health care settings (Garcia et al. 2015; Voss Horrell et al. 2011). In line with the job demands-resources model (Bakker and Demerouti 2007), prescribing responsibilities may be a particularly relevant predictor of burnout among VHA psychiatrists given the increasing need for psychiatric care of veterans yet the limited staff, time and resources available to meet their needs. Given findings by Garcia et al. (2015) that time devoted to prescribing predicted burnout among VHA psychiatrists, the next step is to identify how these various factors are associated to better inform mental health providers of individual- and organizational-level methods to increase employee satisfaction and productivity, and by extension client care. Given the VHA is a federal health agency comprising the largest integrated mental health system in the United States, and organizational factors have been identified as the most challenging aspect of the job among VHA mental health staff (Saylers et al. 2013), the administrative oversight likely predicts the higher stress levels of psychiatrists.

The goals of the current study were twofold. First, we examined the direct relationship between the primary responsibility of psychiatrists (i.e., percent of time devoted

to prescribing medication) and the three burnout factors described by Christina Maslach—exhaustion, cynicism, and professional efficacy. Given prior findings of gender differences in burnout levels among psychiatrists (e.g., Benbow and Jolley 1999), we accounted for gender differences in each of the proposed analyses. In line with findings from Garcia et al. (2015), we hypothesized that psychiatrists who spend a greater percentage of time prescribing medication would report higher levels of exhaustion and cynicism, and lower levels of professional efficacy, while accounting for gender. Following the interactive model of the stress process (Holloway et al. 2000), the second goal of the current study was to examine the mediating role of bureaucratic factors, which can be categorized in terms of organizational treatment (i.e., the extent of employee autonomy and perceived fairness by superiors) and organizational support (i.e., the extent of workplace demands placed on the employee and resource availability provided by the employer), on the direct relationship between primary occupational task (e.g., time devoted to prescribing medication) and burnout. The VHA is the largest mental health facility in the US, treating over nine million veterans, which requires an organizational structure that can be conducive to veteran needs. Yet, the VHA is currently understaffed with psychiatrists (VA Office of Inspector General 2015), likely restricting their time, resources, and capabilities. Thus, and in line with the job demands-resources model of burnout proposed by Bakker and Demerouti (2007), we predicted organizational factors would partially account for this direct relationship such that psychiatrists who devote more time to pharmacotherapy will endorse worse perceptions of organizational factors, which in turn will be linked to more professional burnout.

## Methods

### Participants and Procedure

Participants included 125 psychiatrists, the majority of whom were full-time employees (76%) and had been employed for more than 5 years (65.3%) across a range of clinical settings in the VHA, including inpatient, substance abuse, emergency room, general outpatient, posttraumatic stress disorder (PTSD) clinical teams, domiciliary, and telemedicine. The average age of participants was 51.7 (SD=9.7) and there was an equal number of males to female respondents (50.4% female). A complete overview of participant demographic characteristics is provided elsewhere (Garcia et al. 2015). Recruitment strategies entailed selecting a random sample of 500 psychiatrists from the VA's national directory from August of 2013. Selected psychiatrists were emailed an invitation to participate in a secure, online survey (via SurveyMonkey) on psychiatrist stress/

burnout in the workplace. After consenting to the study, participants were directed to complete measures evaluating burnout and person, client, work, and organization related characteristics. Psychiatrists were informed that their participation was voluntary and that no identifying information would be collected. Due to the nature and content of the survey, psychiatrists were provided resources on how to alleviate burnout after they completed the survey. All study procedures were approved by the Institutional Review Boards of the South Texas Veterans Health Care System and the University of Texas Health Science Center at San Antonio. Of the 500 contacted, 125 psychiatrists completed the survey, resulting in a 25 percent response rate. Using the G-power analysis 3.1 software (Faul et al. 2009), the current sample size was determined sufficient with a medium effect size of .09 ( $r^2$ ; Shrout and Bolger 2002), an alpha of .05, and a .80 power level to perform the proposed analyses.

## Measures

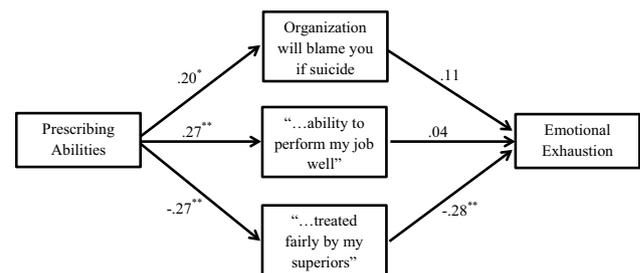
The Maslach Burnout Inventory-General Survey (MBI-GS; Maslach et al. 1996) was used to assess burnout in the current sample. The MBI-GS is a 16-item, self-report inventory that groups items into three categories (exhaustion, cynicism, and professional efficacy). The exhaustion subscale is comprised of five items (e.g., “I feel emotionally drained from my work”), cynicism includes five items (e.g., “I doubt the significance of my work”), and professional efficacy is comprised of six items (e.g., “In my opinion, I’m good at my job”). Respondents indicated the frequency of experiencing each item in their work based on a six-point Likert scale ranging from 0 (*Never*) to 6 (*Daily*). Higher scores on exhaustion (score range 0–30) and cynicism (score range 0–30) and lower scores on professional efficacy (score range 0–36) indicate higher levels of burnout. The MBI-GS has received extensive psychometric support across a range of occupations, including the health services (Bakker et al. 2002; Schaufeli et al. 1996). Internal consistency for the current sample ranged from good to excellent for the subscales (exhaustion = .94; cynicism = .84, professional efficacy = .77).

Participants were also asked to complete a series of questions that were developed by the third author and related to demographic, patient care, and organizational treatment and support characteristics (Garcia et al. 2015). A common challenge in survey research is the ability to obtain a comprehensive picture of a given construct (i.e., determinants of burnout) while minimizing the level of burden on participants. Therefore, the third author conducted a thorough review of the burnout literature to inform survey development. In particular, participants completed 20 items about patient care variables, including time spent on call, administrative tasks, providing therapy, prescribing medication, and teaching,

using a four-point Likert scale ranging from 1 (0–25%) to 4 (76–100%). Respondents also completed seven items about organizational characteristics, including fear of blame by the organization (for patient suicides), clinical workload, staffing, administrative workload, organizational politics, fairness, and available resources (Garcia et al. 2015). Participants responded to these organizational characteristics using a five-point Likert-type scale ranging from 1 (*Strongly disagree*) to 5 (*Strongly agree*).

## Data Analytic Approach

Partial correlations were conducted to examine the direct relationship between percentage of time devoted to prescribing medication and psychiatrist burnout, while accounting for gender (goal one). A series of mediation analyses were then performed to determine the extent to which the organizational factors mediated the relationships between primary job duties (i.e., percent of time devoted to prescribing medication) and professional burnout (i.e., exhaustion, cynicism, and professional efficacy) while accounting for gender (goal two). Mediation analyses were tested in SPSS using the PROCESS macro developed by Preacher and Hayes (2004), which uses ordinary least squares regression to estimate the direct and indirect effects in multiple mediator models and a bootstrap technique to provide confidence intervals of indirect effects. The bootstrapping technique, which is used to correct for skewed data, involved the extraction of 5000 resamples with the mediational effect being calculated for each of these resamples (Preacher and Hayes 2004). Given the concerns with relying on the p-value to determine a significant effect, confidence intervals are a recommended alternative such that significant mediated paths have 95% confidence intervals that do not include zero (Halsey et al. 2015). The percent of variance accounted for by the mediators was calculated by dividing the product of standardized paths  $a$  and  $b$  for the mediator by path  $c$  (Preacher and Hayes 2004). We also calculated the absolute value change between the total ( $c$ ) and direct ( $c'$ ) relationship after including the



**Fig. 1** Observed model of relationships between psychiatrist prescribing abilities, organizational obstacles, and emotional exhaustion. \* $p < .05$ , \*\* $p < .01$

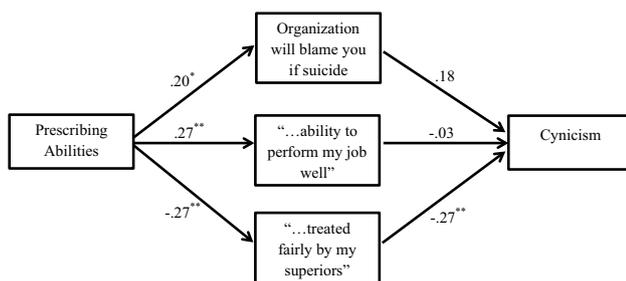
mediators given the potential inflation of effect size estimates with lower beta values (Preacher and Kelley 2011).

## Results

Most psychiatrists (73%) reported spending at least half of their work week prescribing/monitoring patient medication. Time devoted to prescribing medication was positively related to emotional exhaustion ( $r = .21, p = .03$ ) and cynicism ( $r = .21, p = .03$ ), but unrelated to professional efficacy ( $r = -.14, p = ns$ ). Therefore, mediation analyses were conducted on emotional exhaustion and cynicism.

### Organizational Treatment

The first mediation analysis examined the mediating role of three organizational treatment items (i.e., Do you fear that if a patient commits suicide the organization will blame you, I feel that organizational politics or bureaucracy negatively impact the ability to perform my job well, I feel I am treated fairly by my superiors) on the relationship between percent of time devoted to prescribing/monitoring medication and exhaustion, while accounting for gender. The results of this analysis are presented in Fig. 1. This approach revealed that percent of time prescribing/monitoring medication was positively related to cynicism ( $c = .21, p = .03$ ). After including the mediator in the model, the direct relationship between percent prescription time and exhaustion was nonsignificant ( $c'1 = .10, p = ns$ ). “I feel I am treated fairly by my superiors” was the only significant mediator in the relationship ( $r = .07, 95\% \text{ CI's } [.01, .18]$ ), accounting for 35% of the mediated effect, suggesting a large effect size. However, the absolute value change from the total to direct effect after including the mediators was .11, indicating a medium effect size (Preacher and Kelley 2011). Specifically, percent of time prescribing medication predicted a decrease in feeling fairly treated by superiors ( $a = -.27, p < .01$ ), which in turn, predicted an increase in exhaustion ( $b = -.26, p = .08$ ).

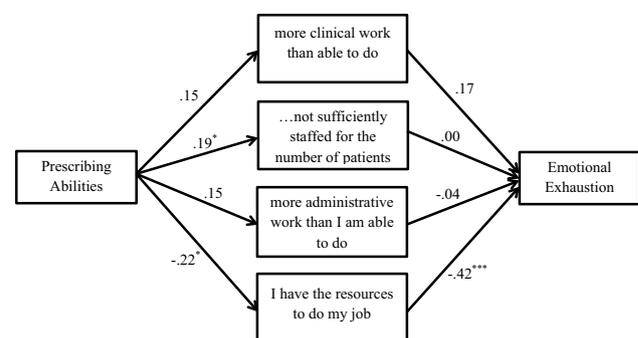


**Fig. 2** Observed model of relationships between psychiatrist prescribing abilities, organizational obstacles, and cynicism. \* $p < .05$ , \*\* $p < .01$

The second mediation analysis examined the mediating role of organizational treatment items on the relationship between percent of time devoted to prescribing/monitoring medication and cynicism, accounting for gender. The results of this analysis are presented in Fig. 2. This approach revealed that percent of time prescribing/monitoring medication was positively related to cynicism ( $c = .21, p = .03$ ). After including the mediators in the model, the direct relationship between percent prescription time and cynicism was reduced ( $c'1 = .11, p = ns$ ). Unfair treatment by superiors was the only significant mediator in the relationship ( $r = .07, 95\% \text{ CI's } [.01, .18]$ ), accounting for 35% of the mediated effect. The absolute value change in effects after including the mediators was .10, indicating a medium effect size. Specifically, percent of time prescribing medication predicted a decrease in feeling treated fairly by superiors ( $a = -.27, p < .01$ ). In turn, feeling mistreated by superiors predicted an increase in cynicism ( $b = -.27, p < .01$ ) such that psychiatrists who feel mistreated by superiors are reporting more professional cynicism.

### Organizational Support

The third mediation analysis examined the mediating role of four organizational support items (i.e., I feel there is more clinical work than practically able to do, My clinic is not sufficiently staffed for the number of patients we are expected to see, I feel there is more administrative work than I am practically able to do, and I have the resources to successfully do my job) on the relationship between percent of time devoted to prescribing/monitoring medication and exhaustion. The results of this analysis are presented in Fig. 3. After including the mediators in the model, the direct relationship between percent of prescription time and exhaustion was nonsignificant ( $c'1 = .10, p = ns$ ). “I have the resources to successfully do my job” was the only significant mediator in the relationship ( $r = .09, 95\% \text{ CI's } [.03, .22]$ ), accounting



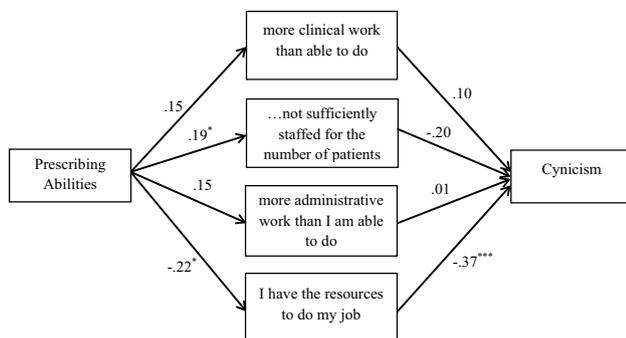
**Fig. 3** Observed model of relationships between psychiatrist prescribing abilities, organizational support, and emotional exhaustion. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

for 44% of the mediated effect. The absolute value change in effects after including the mediators was .11, indicating a medium effect size. Specifically, percent of time prescribing medication predicted a decrease in having the necessary resources for my job ( $a = -.22, p = .02$ ), which in turn, predicted an increase in exhaustion ( $b = .42, p < .001$ ).

The fourth mediation analysis examined the mediating role of organizational support items on the relationship between percent of time devoted to prescribing/monitoring medication and cynicism, while accounting for gender. The results of this analysis are presented in Fig. 4. After including the mediators in the model, the direct relationship between percent prescription time and cynicism was no longer significant ( $c'1 = .15, p = ns$ ). Lacking the resources to do one's job was the only significant mediator in the relationship ( $r = .08, 95\% \text{ CI's } [.02, .18]$ ), accounting for 39% of the mediated effect. The absolute value change in effects after including the mediators was .06, indicating a small effect size. Specifically, percent of time prescribing medication predicted a decrease in having the resources to successfully do one's job ( $a = -.22, p = .02$ ), which in turn, predicted an increase in cynicism ( $b = -.37, p < .001$ ).

## Discussion

The current study sought to examine the role of organizational factors on the relationship between the primary job responsibility of VHA psychiatrists, prescribing and monitoring psychiatric medication, and professional burnout. In line with the interactive model of the stress process (Holloway et al. 2000), we found that factors related to organizational treatment and support partially mediated the relationship between percent of time prescribing medication and emotional exhaustion and cynicism. In terms of organizational treatment, psychiatrists who devoted more of their time to prescribing medication was related to feeling



**Fig. 4** Observed model of relationships between psychiatrist prescribing abilities, organizational support, and cynicism. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

unfairly treated by their superiors, which in turn, was related to experiencing more emotional exhaustion and cynicism. With regard to organizational support, psychiatrists who spent the majority of their work week prescribing medication was related to having too few resources to complete their job responsibilities, which in turn, was related to experiencing more emotional exhaustion and cynicism. Contrary to predictions, the percentage of time devoted to prescribing medication was unrelated to professional efficacy among VA psychiatrists.

As an extension of Garcia et al. (2015), the current findings highlight the association of organizational factors on the extent of professional burnout among VHA psychiatrists. In line with Holloway's interactive model of the stress process, perceived treatment by superiors and the organization was associated with high levels of emotional exhaustion and cynicism in psychiatrists. Further, Kumar et al. (2011) and Thompson (1998) noted workplace characteristics such as responsibility without authority and conflict between responsibility toward employers versus the patient as primary sources of workplace stress which may be similar to the perceived mistreatment of psychiatrists in the current sample. In particular, the requirements of psychiatrists to meet the VHA standards of care policies (e.g., new veterans must be scheduled within 30 days) may prevent them from fully addressing the veterans' needs. The increasing number of veterans seeking psychiatric services combined with the limited number of psychiatrists available may lead psychiatrists to feel unfairly treated by the VHA. Although the relational nature of the current study prevents any causal conclusions, improving the relationships between psychiatrists and the administration may be one method for mitigating professional burnout. For example, encouraging administrators to communicate directly with psychiatrists about their capability of meeting the standard of care policies may minimize their perceived mistreatment and increase administrator awareness of the potential conflict between adhering to VHA policies and providing effective veteran care.

In addition to fostering more supportive working relationships in the VHA, ensuring psychiatrists have the necessary resources to successfully perform their job may also help mitigate professional burnout. Current findings are consistent with existing literature on the job demands-resources model, in that the lack of resources available in healthcare organizations are associated with more burnout among psychiatrists (Bakker and Demerouti 2007; Deahl and Turner 1997). For example, the VHA may improve the efficiency of healthcare to veterans and reduce workplace stress by hiring more psychiatrists and more support staff such as nurses, administrative support, and nurse practitioners, as well as, building in time for consultation with colleagues and superiors. From a cost perspective, Garcia et al. (2015) noted that the cost of hiring more psychiatrists can be balanced by

improving staff retention. In fact, improving staff retention may be a more important avenue for the VHA considering the high turnover rates of psychiatrists despite the increase in their salary (Healthcare Leadership Talent Institute 2016). Therefore, improving the organizational climate in the VHA may entail addressing the organizational obstacles and support simultaneously to improve the quality of life for both the veterans and the providers.

Interestingly, psychiatrists who devoted more time to prescribing and monitoring medication were unrelated to their degree of professional efficacy, which is inconsistent with existing research (Kumar et al. 2012). It may be that psychiatrists in the VHA have higher levels of perceived effectiveness and accomplishment in their positions compared to those in other clinical settings. In fact, VHA psychiatrists in the current sample reported a high degree of professional efficacy despite their high levels of emotional exhaustion and cynicism. This finding is consistent with the Commission on Care report (2016) which highlighted that despite the bureaucratic challenges, providers in the VHA are providing quality care to veterans and they perceive their work as effective. Further, Watkins et al. (2015) compared healthcare delivery between VHA providers and private-sector providers and found VHA providers, including psychiatrists, were superior in delivering initial medication treatment and appropriate long-term treatment to clients experiencing a range of mental health issues. Therefore, psychiatrists in the VHA appear to be effective and feel accomplished in their work. Important next steps will involve examining specific patient characteristics (e.g., trauma-exposed veterans) and psychiatrist capability to utilize other, potentially more effective clinical skills (e.g., psychotherapy) to determine what predicts lower professional efficacy, and even higher exhaustion and/or cynicism in the VHA.

The current study suggests that fostering a supportive work environment may be an important strategy for reducing professional burnout among VHA psychiatrists. In particular, addressing how psychiatrists are treated by their superiors and how resources are allocated may improve their emotional stamina and interpersonal relationships in the workplace. Extensive research has linked social support in the workplace to burnout (Cordes and Dougherty 1993; Lee and Ashforth 1996). For example, Maslach et al. (2001) found that support from superiors is particularly important in alleviating workplace burnout, and Barak et al. (2001) found social support as a key component of staff retention. Given the risk of high turnover due to professional burnout among VHA psychiatrists (Garcia et al. 2015), cultivating a supportive work environment may also improve staff retention. Further, Waldman et al. (2004) evaluated the turnover costs at a major medical center and found that five percent of the organization's annual operating budget was attributed to turnover costs, amounting to approximately \$29.3 million.

Therefore, improving staff retention by facilitating a supportive work environment at VHA has the potential to reduce organizational costs.

Current findings must be interpreted considering study limitations. First, our modest response rate, while consistent with other clinician samples (Hawley et al. 2009), resulted in a small sample size for the current analyses. Studies using path analysis typically prefer sample sizes of 200 participants to meet adequate power. Although power analyses suggested our sample size of 125 was adequate for current analyses, replication of the current study with a larger sample size is recommended. Relatedly, our recruitment method may have affected our response rate and introduced selection bias, given the email sent to psychiatrists outlined that we were examining burnout in the workplace. More nuanced recruitment approaches may offer a higher response rate and a sample of psychiatrists with varying levels of professional burnout. Second, the organizational characteristics items in the current study were developed by the third author, and while generated based on the burnout literature, may not fully capture organizational treatment and support. For example, responsibility without authority, a likely indicator of organizational treatment was not included in the current study. Although the survey was developed with consideration of completion time to ensure adequate response rate, future research will benefit from using a psychometrically validated measure of organizational characteristics. Finally, the study is cross-sectional which prevents any causal inferences. Utilization of longitudinal designs can shed light on the impact of systemic changes in the VHA on levels of burnout among psychiatrists.

Taken together, the current study demonstrates the association between organization characteristics and professional burnout in a sample of VHA psychiatrists. Although psychiatrists in the current sample reported feeling accomplished and effective in their job, they also reported high rates of emotional exhaustion and professional detachment, which were associated with a lack of organizational support and resources. Given this finding, it is important to consider interventions geared toward addressing the organizational climate. For example, the Public Health England (2016) conducted a review of interventions focused on reducing burnout and found that organizational-level interventions geared toward improving the organizational culture and workplace practices (e.g., assessment of workload and expansion of clinical supervision and support) can generate longer-lasting positive effects for employees. It may be useful for the VHA to implement organizational interventions geared toward improving the professional relationships of employees and supervisors and discussing the resources needed for psychiatrists to perform their job duties.

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## Compliance with Ethical Standards

**Conflict of interest** The authors declare that they have no conflicts of interest.

**Ethical Approval** All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

**Informed Consent** Informed consent was obtained from all individual participants included in the study. For this type of study formal consent is not required.

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