

The Association of Team-Specific Workload and Staffing with Odds of Burnout Among VA Primary Care Team Members

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BACKGROUND: Work-related burnout is common in primary care and is associated with worse patient safety, patient satisfaction, and employee mental health. Workload, staffing stability, and team completeness may be drivers of burnout. However, few studies have assessed these associations at the team level, and fewer still include members of the team beyond physicians.

OBJECTIVE: To study the associations of burnout among primary care providers (PCPs), nurse care managers, clinical associates (MAs, LPNs), and administrative clerks with the staffing and workload on their teams.

DESIGN: We conducted an individual-level cross-sectional analysis of survey and administrative data in 2014.

PARTICIPANTS: Primary care personnel at VA clinics responding to a national survey.

MAIN MEASURES: Burnout was measured with a validated single-item survey measure dichotomized to indicate the presence of burnout. The independent variables were survey measures of team staffing (having a fully staffed team, serving on multiple teams, and turnover on the team), and workload both from survey items (working extended hours), and administrative data (patient panel overcapacity and average panel comorbidity).

KEY RESULTS: There were 4610 respondents (estimated response rate of 20.9%). The overall prevalence of burnout was 41%. In adjusted analyses, the strongest associations with burnout were having a fully staffed team (odds ratio [OR]=0.55, 95% CI 0.47–0.65), having turnover on the team (OR=1.67, 95% CI 1.43–1.94), and having patient panel overcapacity (OR=1.19, 95% CI 1.01–1.40). The observed burnout prevalence was 30.1% lower (28.5% vs. 58.6%) for respondents working on fully staffed teams with no turnover and caring for a panel within capacity, relative to respondents in the inverse condition.

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CONCLUSIONS: Complete team staffing, turnover among team members, and panel overcapacity had strong, cumulative associations with burnout. Further research is needed to understand whether improvements in these factors would lower burnout.

KEY WORDS: burnout; primary care staffing; team-based care; primary care workload; patient-centered medical home.

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INTRODUCTION

Burnout is a prevalent occupational condition characterized by employee feelings of emotional exhaustion, lack of personal connection to colleagues and patients, and doubting their professional abilities or impact.¹ Over half of US physicians² and nearly half of nurses working in primary care^{3,4} screen positive for burnout on surveys. National surveys of US physicians and Veterans Health Administration (VA) primary care employees report that burnout has increased significantly in recent years.^{2,5}

Clinician burnout has many negative consequences. Patients cared for by providers suffering from burnout report lower satisfaction^{6,7} and receive lower-quality care.^{8–10} Providers with burnout report higher levels of absenteeism and more frequent intention to leave their jobs.^{11–13} Ultimately, they are more likely to reduce work hours¹⁴ and leave medical practice entirely.^{12,15,16} This has led some to call for the Triple Aim advanced by the Institute for Healthcare Improvement to be amended to include a fourth aim of improving clinician work life in addition to the original three goals of improving patient experience, expanding population health, and reducing costs.¹⁷

A number of workplace conditions appear to contribute to burnout. Workload issues such as working overtime^{18,19} and excess patient volume^{20–22} are associated with burnout in primary care, as are turnover among primary care support staff²⁰ and insufficient staff to manage patient volume.^{23–26}

The patient-centered medical home (PCMH) has been suggested as a model to simultaneously improve quality of care

and reduce burnout among primary care employees in part through team-based approaches to patient care.²⁷ Modern primary care is complex, involving the provision and coordination of care for patients who often have several chronic medical and psychiatric conditions and who require a variety of services from multiple providers. Team-based care should distribute clinical duties among team members in a way that optimally matches team members' responsibilities and competencies.

In 2010, the US Department of Veterans Affairs undertook the largest implementation of the PCMH to date, involving over 900 primary care clinics.²⁸ A key feature of the VA's implementation of this model was the creation of Patient Aligned Care Teams (PACT) consisting of one primary care provider, one nurse (RN) care manager, one clinical associate (LPN), and one clerical assistant. Given the scale of program, however, it proved difficult to achieve full staffing at all sites. Moreover, demand for care varied among sites resulting in variable workload.

In prior evaluations of the PACT initiative, no associations were found between burnout among primary care personnel and clinical workload in terms of primary care team panel size or the complexity of patients on the panel.^{29, 30} However, these evaluations adjusted for panel size and complexity only at the clinic level, a method that may mask important variation in workload experienced at the team level. While the perception of inadequate staffing was associated with burnout,^{29, 31} the importance of team-specific employee turnover was not evaluated. Finally, while prior research has demonstrated that workload and staffing are associated with burnout in primary care, little is known about the individual or combined effects of excess workload and inadequate staffing. We sought to assess the association between burnout among primary care employees and team-specific staffing and workload, as well as staffing and workload among each of the four occupations that constitute the core VA medical home team.

METHODS

Setting and Design

We conducted an individual-level cross-sectional analysis of national VA primary care personnel survey data collected from members of patient aligned care teams, and administrative data on primary care team workload. The survey was fielded online in August and September 2014. The survey link was disseminated via an email from VA central office leadership to network and facility leaders, with instructions to distribute to primary care personnel.

Measures and Sample

We included respondents from four occupations that make up the core VA primary care team: primary care providers (PCPs, which included physicians, nurse practitioners, and physician

assistants), nurse care managers, clinical associates (mainly licensed practical nurses), and administrative clerks.

Workplace burnout was measured with a validated single-item measure used in the Physician Worklife Study that asks respondents to rate their level of burnout using a five-point ordinal scale (Table 1). We dichotomized burnout as ≥ 3 (burnout) versus < 3 (not burned out) according to previously established cutoffs.³²

We analyzed nine independent variables: three related to team staffing and six related to clinical workload. We anticipated that belonging to a single, stable, fully staffed team would, on average, improve the working environment, and reduce burnout. Team staffing variables included three survey items: *Are you currently on more than one team?*; *Is your team currently staffed at the recommended 3:1 ratio?* (3 full-time staff for 1 full-time PCP); and *Has your team had any changes in, or loss of, staff in the past 12 months?*

We anticipated that high workload, represented by panel overcapacity, patient appointments outside regular hours, and a panel of patients with high comorbidities, would contribute to a more stressful work environment and higher burnout. Workload variables included four survey items and two variables from administrative data. The three survey items were questions asked only of respondents who replied yes to the question *Does your PACT team have provider appointments available outside the traditional business hours of M–F, 0800–1700 (8 am–5 pm)?* We refer to this as extended hours. This subgroup was asked: *How often does your team work extended hours during the week?* (4 categories dichotomized to Yes/No); *How often does your team work extended hours on the weekends?* (4 categories dichotomized to Yes/No); and *Does your team work extended hours together as a team (at least 80% of the time)?* (Yes/No).

The administrative variables were two team-level clinic workload measures that we linked to individual respondents. The first was the size of the patient panel for the respondent's team, dichotomized as within or over capacity. We defined panel capacity based on a national VA recommendation of 1200 patients per panel, adjusted for the number of half-days per week providers spend providing primary care and for provider type, with nurse practitioners and physician assistants having lower panel targets of 900 patients.²⁸ Second, we calculated panel comorbidity, using the average Gagne comorbidity score, a validated, single-number comorbidity score that combines the conditions in the Charlson and Elixhauser measures to predict short- and long-term mortality.³³

We excluded respondents who did not know whether their team was currently staffed at the recommended 3:1 ratio ($n = 385$), or who could not be linked to a team in the administrative files and therefore for whom no data on panel size or patient comorbidity were available ($n = 239$).

Other covariates included duration of VHA tenure (8 categories), total years/time working in the PACT model (4 categories), and clinic location (community-based outpatient clinic [CBOC] or VA medical center [VAMC]).

Table 1 Descriptive Statistics

Variable	All roles (n = 4610)	PCP (n = 1517, 32.9%)	Nurse (n = 1276, 27.7%)	CA (n = 1164, 25.2%)	AC (n = 653, 14.2%)
Burnout, no. (%)					
Dichotomized burnout (Yes/No)	1882 (40.8%)	747 (49.2%)	530 (41.5%)	372 (32.0%)	233 (35.7%)
Physician Worklife Study index					
1 = I enjoy my work...	881 (19.1%)	199 (13.1%)	212 (16.6%)	317 (27.2%)	153 (23.4%)
2 = Occasionally...	1847 (40.1%)	571 (37.6%)	534 (41.8%)	475 (40.8%)	267 (40.9%)
3 = I am definitely..	1093 (23.7%)	429 (28.3%)	310 (24.3%)	232 (19.9%)	122 (18.7%)
4 = The symptoms...	496 (10.76%)	217 (14.3%)	135 (10.6%)	88 (7.6%)	56 (8.6%)
5 = I feel completely burned...	293 (6.36%)	101 (6.7%)	85 (6.7%)	52 (4.5%)	55 (8.4%)
VA medical center (vs. CBOC), no. (%)	2170 (47.1%)	798 (52.6%)	587 (46.0%)	492 (42.3%)	293 (44.9%)
Tenure with VA, no. (%)					
< 6 months	168 (3.6%)	58 (3.8%)	37 (2.9%)	41 (3.5%)	32 (4.9%)
6–12 months	282 (6.1%)	78 (5.1%)	70 (5.5%)	83 (7.1%)	51 (7.8%)
1–2 years	494 (10.7%)	132 (8.7%)	123 (9.6%)	139 (11.9%)	100 (15.3%)
3–5 years	1028 (22.3%)	297 (19.6%)	288 (22.6%)	279 (24.0%)	164 (25.1%)
5–10 years	1140 (24.7%)	376 (24.8%)	313 (24.5%)	295 (25.3%)	156 (23.9%)
10–15 years	677 (14.7%)	283 (18.7%)	173 (13.6%)	157 (13.5%)	64 (9.8%)
15–20 years	295 (6.4%)	115 (7.6%)	85 (6.7%)	59 (5.1%)	36 (6.4%)
> 20 years	526 (11.4%)	178 (11.7%)	187 (14.7%)	111 (9.5%)	50 (7.7%)
Experience with PACT, no. (%)					
< 6 months	325 (7.1%)	83 (5.5%)	95 (7.4%)	79 (6.8%)	68 (10.4%)
6–12 months	486 (10.5%)	116 (7.6%)	133 (10.4%)	140 (12.0%)	97 (14.8%)
1–2 years	1148 (24.9%)	341 (22.5%)	290 (22.7%)	309 (26.6%)	208 (31.8%)
> 2 years	2651 (57.5%)	977 (64.4%)	758 (59.4%)	636 (54.6%)	280 (42.9%)
Fully staffed	2740 (64.8%)	783 (57.4%)	750 (62.4%)	753 (69.5%)	454 (77.7%)
Turnover	2821 (61.2%)	939 (61.9%)	828 (64.9%)	684 (58.8%)	370 (56.7%)
Member of multiple teams	1241 (26.9%)	212 (14.0%)	419 (32.8%)	327 (28.1%)	283 (43.3%)
Clinic workload and capacity, no. (%)					
Panel overcapacity	1371 (31.6%)	471 (33.2%)	354 (29.6%)	368 (33.3%)	178 (28.9%)
Average panel comorbidity (mean, SD)	0.444 (0.304)	0.477 (.341)	0.429 (0.268)	0.420 (0.297)	0.439 (0.288)
Works extended hours	1719 (37.3%)	643 (42.4%)	480 (37.6%)	385 (33.1%)	211 (32.3%)
Extended-hours clinic workload among subgroup that work extended hours N = 1719					
	All Roles (n = 1719)	PCP (n = 643, 37.4%)	Nurses (n = 480, 27.92%)	CA (n = 385, 22.4%)	AC (n = 211, 12.3%)
Works extended hours during week	1538 (89.5%)	573 (89.0%)	438 (91.2%)	337 (87.5%)	190 (90.0%)
Works extended hours during weekend	1378 (80.2%)	504 (78.4%)	393 (81.9%)	314 (81.6%)	167 (79.2%)
Works extended hours with team	987 (57.4%)	363 (56.4%)	273 (56.9%)	229 (59.5%)	122 (57.8%)

Analyses

Odds ratios (ORs) were estimated using mixed-effects logistic regression models on respondents having observed data for all covariates of interest. All models were adjusted for the following: team staffing (team staffed to the 3:1 ratio, working on multiple teams, turnover on the team) and clinic workload variables (panel overcapacity, average panel comorbidity, working extended hours), respondent occupation, duration of VA tenure, VA medical center (vs. CBOC) indicator, and two random intercepts for team and clinic, since respondents were nested within teams, which were further nested within clinics. Models that further estimated ORs by occupation (and other variables) included additional two- and three-way interaction terms between occupation and each of the variables of interest. As a sensitivity analysis, we re-estimated ORs using weighted propensity score methods to adjust for the potential selection bias often associated with low survey response. The propensity to respond was estimated for each responder and non-responder using available administrative data (occupation, VA tenure, and clinic location); these propensities were used to form adjustment cells, and respondents were weighted by the inverse of the observed response rate in that cell, referred to as “response propensity stratification”³⁴ (see Appendix A, available online).

RESULTS

A total of 4610 respondents were included in the sample (20.9% response rate). Of the 8114 teams in the administrative files at the time, 3020 (37.2%) had at least one survey respondent and 1113 (13.7%) had multiple respondents, and 702 of the 935 primary care clinics (75.1%) had at least one respondent and 576 (61.6%) had multiple respondents.

Overall, 40.8% of respondents screened positive for burnout, ranging from 32.0% of clinical associates to 49.2% of PCPs (Table 1). For staffing, 64.8% of respondents reported working on a team staffed to the recommended ratio, and 61.2% reported a change in one or more team members in the past 12 months. For workload, 31.6% of panels exceeded capacity when adjusted for panel size and part time versus full time; 37.3% worked extended hours during the week or weekend. Of those working extended hours, 57.4% reported working at least 80% of extended hours with members of their own team versus other teams.

In unadjusted analyses, the largest burnout differences were between respondents on fully staffed versus not fully staffed teams (35.2% vs. 52.3%, respectively), respondents with turnover versus no turnover on the teamlet (45.7% vs. 33.2%, respectively), and respondents with panel overcapacity versus no overcapacity (43.9% vs. 39.9%) (Table 2). Although

Table 2 Burnout Percentage by Provider Occupation, Team Staffing, and Clinic Workload

Variable	Burnout % (n)	PCP (n = 1517)	Nurses (n = 1276)	CA (n = 1164)	AC (n = 653)
Fully staffed, % (n)*	All roles (n = 4610)				
Yes (n = 2740)	35.2% (964)	43.8% (343)	36.8% (276)	26.4% (199)	32.2% (146)
No (n = 1485)	52.3% (777)	57.4% (329)	50.9% (230)	45.8% (151)	51.5% (67)
Turnover, % (n)					
Yes (n = 2821)	45.7% (1288)	53.6% (503)	46.4% (384)	36.3% (248)	41.4% (153)
No (n = 1789)	33.2% (594)	42.2% (244)	32.6% (146)	25.8% (124)	28.3% (80)
Member of multiple teams, % (n)					
Yes (n = 1241)	42.2% (524)	43.9% (93)	46.8% (196)	37.6% (123)	39.6% (112)
No (n = 3369)	40.3% (1358)	50.1% (654)	39.0% (334)	29.7% (249)	32.7% (121)
Panel overcapacity, % (n) †					
Yes (n = 1371)	43.9% (602)	53.3% (251)	43.2% (153)	37.0% (136)	34.8% (62)
No (n = 2963)	39.9% (1181)	48.0% (455)	41.1% (346)	29.5% (217)	37.1% (163)
Average panel comorbidity, % (n) ‡					
Category 4 (n = 1143) §	41.6% (475)	48.0% (209)	42.6% (127)	33.3% (86)	34.9% (53)
Category 3 (n = 1144)	40.0% (458)	48.0% (181)	41.9% (135)	31.9% (89)	31.9% (53)
Category 2 (n = 1144)	44.2% (506)	54.8% (199)	43.5% (135)	36.1% (113)	37.3% (59)
Category 1 (n = 1143)	37.3% (426)	45.8% (154)	37.8% (124)	26.5% (82)	38.8% (66)
Works extended hours, % (n)					
Yes (n = 1719)	44.0% (756)	51.9% (334)	42.5% (204)	34.8% (134)	39.8% (84)
No (n = 2891)	38.9% (1126)	47.3% (413)	41.0% (326)	30.6% (238)	33.7% (149)
Burnout % (n) among the subgroup that work extended hours N = 1719					
All roles (n = 1719)		PCP (n = 643)	Nurses (n = 480)	CA (n = 385)	AC (n = 211)
Clinic workload					
Works extended hours during week					
Yes (n = 1538)	43.2% (664)	51.5% (295)	42.7% (187)	32.0% (108)	38.9% (74)
No (n = 181)	50.8% (92)	55.7% (39)	40.5% (17)	54.2% (26)	47.6% (10)
Works extended hours during weekend					
Yes (n = 1378)	45.6% (628)	53.4% (269)	43.5% (171)	38.2% (120)	40.7% (68)
No (n = 341)	37.5% (128)	46.8% (65)	37.9% (33)	19.7% (14)	36.4% (16)
Works extended hours with team					
Yes (n = 987)	40.6% (401)	49.0% (178)	38.5% (105)	31.0% (71)	38.5% (47)
No (n = 732)	48.5% (355)	55.7% (156)	47.8% (99)	40.4% (63)	41.6% (37)

*Fully staffed responses of “I don’t know” are not included (n = 385)

† Panel overcapacity missing for 276 respondents

‡ Panel comorbidity missing for 36 respondents

§ Quartile 4 has the highest panel comorbidity

overall burnout prevalence differed by occupation and was highest among PCPs, differences in burnout by team staffing, turnover, and panel overcapacity status were similar for all four occupations (Table 2).

Respondents who reported working on teams that had appointments outside traditional business hours (i.e. “extended hours”) had burnout prevalence of 44.0%, versus 38.9% for respondents not working extended hours. Among team members working extended hours, those working extended hours during the week had burnout prevalence of 43.2%, versus 50.8% for those who did not. Conversely, burnout prevalence was 45.6% for those working extended hours during the weekend, versus 37.5% for those not working extended hours during the weekend. Team members who worked extended hours with their teamlets had burnout prevalence of 40.6%, versus 48.5% for those who did not work extended hours with their teamlet (Table 2).

In adjusted models, working on a fully staffed team (OR = 0.55, 95% CI 0.47–0.65), turnover on the team (OR = 1.67, 95% CI 1.43–1.94), and having panel overcapacity (OR = 1.19, 95% CI 1.01–1.40) were all significantly associated with odds of burnout (Table 3). Working on multiple teams, average panel comorbidity, and working extended hours were not associated with burnout. When testing the interactions between these variables and occupation, we found that these associations did not differ by occupation (results not displayed).

The associations between burnout, team staffing, team turnover, and panel capacity appear to be additive (Fig. 1). For example, observed burnout for respondents on a team that had no turnover, was fully staffed, and had a panel within capacity was 28.5%, whereas that for respondents on a team not fully staffed, that had experienced turnover in the prior year, and that had panel overcapacity was 58.6%.

Propensity score methods, described in Appendix A (available online), produced ORs for fully staffed, turnover, and overcapacity that remained significant and in the same direction as our original analysis. The propensity-weighted ORs for turnover and overcapacity were larger, and the OR for fully staffed smaller, than our original non-weighted results. The OR for being a member of multiple teams was statistically significant in the predicted direction in the propensity-weighted model only.

DISCUSSION

In this study of VA primary care employees working in PCMH teams, burnout was associated with several workload and staffing characteristics. Inadequate staffing, team member turnover, and patient panel overcapacity were all associated with burnout among all occupations within the team. The associations with burnout were statistically significant, large, and

Table 3 Adjusted Odds of Burnout (n = 3986)

Variable	Odds ratio (95% CI)
PCP	
	Ref
Nurse	0.71 (0.59–0.85)
Clinical associate	0.47 (0.39–0.58)
Administrative clerk	0.72 (0.56–0.91)
Fully staffed	0.55 (0.47–0.65)
Turnover	1.67 (1.43–1.94)
Member of multiple teams	1.13 (0.95–1.34)
Panel overcapacity	1.19 (1.01–1.40)
Average panel comorbidity	1.12 (0.84–1.48)
Works extended hours	1.14 (0.96–1.34)
Odds ratio (95% CI) among the N = 1514 that work extended hours	
Works extended hours during week	0.76 (0.51–1.12)
Works extended hours during weekend	1.48 (1.06–2.05)
Works extended hours with team	0.74 (0.58–0.95)

additive. Observed burnout for employees on a fully staffed team with no turnover and a panel within capacity was an absolute 30.1% lower than that for employees on understaffed teams, with turnover, and with patient panel overcapacity.

An important finding from this paper is that, while the overall prevalence of burnout was lower for nurse care managers, clinical associates, and administrative clerks relative to PCPs, the associations with workload and staffing variables did not differ significantly by occupation. Prior literature has rarely included team members such as clinical associates or clerks.

Among those with patient appointments outside traditional business hours, working extended hours on the weekend, but

not during the week, was associated with higher burnout, something for clinics to consider when assessing options to provide more convenient hours of operation for patients. Working extended hours with one's team was associated with lower odds of burnout, which is consistent with the supposition that team-based primary care is a more supportive work environment and may reduce burnout. Alternatively, clinics able to schedule teams to work extended hours together may be different in other ways not captured in the model, such as how well the clinic is managed and overall staffing availability (as opposed to team-specific staffing). Those factors may be associated with lower burnout and may be unobserved confounders. In addition, there are ways that PCPs and staff work outside regular business hours, such as charting and responding to patient messages, that we do not capture with this item. These may be important correlates of burnout as well.

We found no association between burnout and working on multiple teams, working extended hours during the week, clinic location (hospital- vs. community-based), or patient panel complexity.

These findings make several contributions to the current literature on burnout and team-based primary care. We linked individual survey data on burnout to team-level administrative data on panel size and average patient complexity, whereas previous studies in primary care settings have relied on self-reported workload,^{20, 22, 35} which introduces the risk of method bias.³⁶ Examining clinic-level rather than team-level

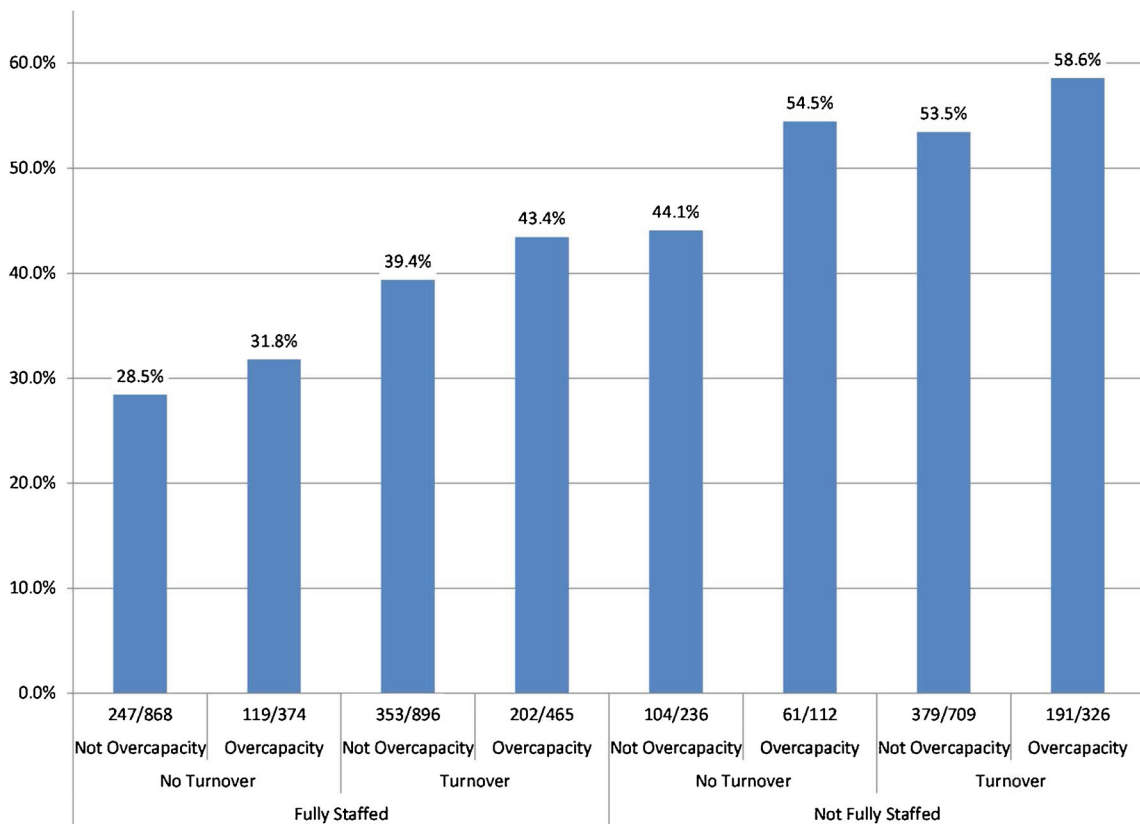


Figure 1 Observed burnout percentages by combinations of team staffing, team turnover, and panel overcapacity.

patient complexity and panel size may mask important variations among teams, and may explain why a previous analysis observed no association between clinics with average panel size overcapacity and burnout among their employees.²⁹

Our findings highlight the potential importance of stable team membership and adequate staffing. A recent study of 29 high-performing primary care practices using team-based care models identified stable team structure and adequate staffing ratios as among the nine key success factors.³⁷ Finally, while most of the literature on burnout in primary care has focused on physicians and RNs,^{18–22, 35} our findings also include other members of the primary care team including LPNs, medical technicians, and administrative clerks, and we found similar patterns of associations among these members of the primary care team.

Limitations

The most important limitation of this study is potential response bias, with an estimated response rate of 21% for primary care personnel. When we compared respondents to non-respondents using administrative data, we found that non-response was associated with occupation, VA tenure, and clinic location, with lower response rates for administrative clerks, those with longer VA tenure, and those at VA medical center-based clinics (as opposed to community-based clinics). Consequently, we adjusted for these three variables in all complete-case regression models, since regression coefficients are not subject to response bias if the probability of non-response depends only on observed variables accounted for in the regression.³⁸ As an additional sensitivity analysis, we used propensity score models to examine the effect of non-response on our initial findings, and found that model coefficients remained significant and in the same direction, but with more extreme ORs. While we cannot rule out the possibility that unobserved differences between respondents and non-respondents affected the results, the propensity score results suggest that our initial findings may be conservative.

These findings do not demonstrate causality. These were cross-sectional analyses, focused on a relatively small set of workplace variables and testing a relatively limited set of associations. Burnout is highly complex and is likely a function of interactions among a range of variables, including relationships with patients, clinician social support, and innate resilience. These findings are influenced both by unobserved confounders, such as the quality of the clinic leadership, and imperfect measurement, such as an inability to distinguish between turnover when a poor performer leaves and that from failure to retain a needed team member.

VA primary care settings differ from other primary care settings in ways that may limit the generalizability of the findings, such as lower average panel sizes, higher patient comorbidities, longer visit times, and a salaried structure with a quality metric-based performance system.³⁹

Finally, there are concerns about endogeneity. Burnout is a known precursor to turnover, and the conditions that lead to burnout likely affect the primary care team broadly. Therefore, turnover on the teamlet might be as much a consequence of burnout as a cause.

CONCLUSIONS

We found large differences in burnout associated with team staffing, team member turnover, and patient panel capacity. Previous studies have found higher burnout associated with working overtime^{18, 19} and having insufficient clinical staff to manage workloads,^{23–26} and lower burnout associated with working in a team structure with a strong team culture⁴⁰ and the quality of physician–nurse relationships.²⁴ Our findings make an important contribution by testing these associations at the team level and for all team members. Whereas most prior research is based on self-reported workload, we linked burnout to independent measures of team-level workload from administrative data. We also assessed burnout among all members of the medical home team, including clinical associates, and administrative clerks, whereas with few exceptions,⁴⁰ prior research has focused exclusively on physicians and RNs. Overall, our findings confirm the importance of team stability and the completeness of team staffing as critical factors in predicting burnout levels among primary care physicians, nurses, and administrative staff. Future research is needed to determine whether burnout declines as staffing and workload improve.

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