

**BRIEF REPORT**

# Gender Differences in Personal and Organizational Mechanisms to Address Burnout Among Family Physicians

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**Background:** Few studies have examined how interventions designed to address physician burnout might impact female and male physicians differently. Our aim was to test whether there are gender differences in individual approaches to address burnout and/or in organizational support aimed at physician well-being.

**Methods:** An online survey was administered in 2019 to family physicians in California and Illinois who are either board certified by the American Board of Family Medicine, a member of their state Academy of Family Physicians, or both. Descriptive statistics and bivariate independence tests were performed for each personal step and organizational support to determine whether there was any gender difference.

**Results:** A total of 2176 family physicians (58% female and 42% male) responded to the survey. A total of 55% of female and 50% of male physicians were burned out. Female physicians were more likely to reduce work hours/go part time and to use domestic help; males were more likely to spend more time on hobbies. Only 8% reported taking no personal steps to address burnout. Male and female physicians reported similar types of organizational support aimed at physician wellness; yet, 20% reported that their organization did not provide any type of well-being support.

**Conclusions:** We identified gendered differences in physician responses to burnout. Effectively mitigating burnout may require different individual-level approaches and different organizational support mechanisms for female and male physicians. (J Am Board Fam Med 2020;33:446–451.)

**Keywords:** California, Family Physicians, Hobbies, Illinois, Professional Burnout, Surveys and Questionnaires, Women Physicians

## Introduction

Physicians experience burnout at higher rates than many other professions, and primary care physicians are no exception.<sup>1–3</sup> Previous research has shown higher burnout rates in female than male family physicians (FPs),<sup>4</sup> and experts have recently

given attention to gendered experiences of burnout.<sup>5,6</sup> Factors contributing to burnout can be different for female and male physicians,<sup>7,8</sup> although work environment factors have been shown to be associated with burnout more than individual clinician characteristics.<sup>9</sup> With female FPs entering the primary care workforce at higher rates than males (female family medicine residents now make up 55% of trainees) and the broader implications of burnout for health care cost and access,<sup>10–13</sup> it is imperative to better understand potential gender differences in addressing burnout.

A growing body of literature focusing on burnout interventions suggests that interventions at the individual, organizational, and structural levels can be effective in combating burnout among physicians.<sup>9,14–17</sup> However, few studies have purposefully examined how interventions at any level might

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impact female and male physicians differently.<sup>18,19</sup> This article presents an analysis from a survey that is part of a larger mixed-methods study of gendered burnout experiences. Because the contributors to physician burnout operate on multiple levels and may vary by gender, so might solutions for addressing it. Our aim was to test whether there are gender differences in individual approaches to address burnout and/or in organizational support aimed at worker well-being.

## Methods

We conducted an online survey of FPs about the factors that contribute to physician burnout and the interventions that improve well-being. Investigators developed the 40-item survey instrument by using previously validated or developed items, and new items were created based on a systematic content domain assessment of literature on burnout and wellness. The survey included questions about physicians' demographic information and practice characteristics, 2 validated Maslach Burnout Inventory items on burnout,<sup>20</sup> and a series of questions about contributors to stress and burnout, personal steps and organizational support to reduce burnout, work environment, and work-life balance.

The survey was administered to all FPs in California and Illinois ( $n = 15,862$ ) who are board certified by the American Board of Family Medicine (ABFM) and/or are a member of their state Academy of Family Physicians from May to June 2019. An initial recruitment e-mail and up to 3 reminder e-mails were sent during this time, either from ABFM researchers or from the California or Illinois state chapters. The study was approved by the American Academy of Family Physicians Institutional Review Board.

The present study analyzed 2 survey questions addressing burnout at an individual and organizational level: "What personal steps have you taken to address burnout?" and "Which of the following does your organization provide to support worker well-being?" Each question presented a list of items, and participants were asked to select all that apply. Physician gender was obtained from a demographic question that included the following response options: female, male, genderqueer, or not exclusively male or female.

We described the sample by physician demographic and practice characteristics. Respondents were categorized as burned out if they reported

feeling emotionally exhausted or callous at least once per week. We performed bivariate independence tests for each personal step and organizational support to determine whether there were gender differences. We adjusted the  $P$  values to control for the overall false discovery rate.<sup>21</sup> All analyses were conducted using SAS software version 9.4 (SAS Institute Inc, Cary, NC).

## Results

A total of 2176 FPs (1652 from California and 524 from Illinois) completed the survey, rendering an overall response rate of 13.8%. However, the actual response rate might be understated, as it is unknown how many of the nonresponders never received the e-mail. Only 7 respondents identified as genderqueer or nonbinary, so we removed these individuals from our analyses. Of the respondents, 58.0% were female and 42.0% were male. Female physicians were more likely to report burnout (55.2%) than males (50.3%). Table 1 presents additional respondent demographic and practice characteristics.

Male and female physicians reported taking a variety of individual steps to reduce burnout (Table 2). The most common activity reported was starting or maintaining a regular exercise or mindfulness regimen (over 50% of both males and females reported doing so). Female physicians were significantly more likely to reduce work hours/go part time, use domestic help, and talk to a therapist than males (all  $P < .0001$ ), whereas males were more likely to spend more time on hobbies ( $P = .0028$ ). Only 9% of all physicians reported participating in a formal wellness program, and 8% reported taking no personal steps to address burnout.

Male and female physicians reported similar types of organizational support aimed at physician wellness (Table 3), although overall, organizational support was reported by relatively few physicians. The most commonly mentioned organizational support was adequate physician to nurse/medical assistant ratios (36%), followed by access to behavioral health resources (33%). Fewer than 1/4 of respondents reported that their organization provided flexible work hours, protected time to complete nonclinical tasks, or provided flexible paid time off. Although 1/5 reported that their organization offered a formal wellness program, a similar number said that their organization did not provide any type of well-being support. The provision of a

**Table 1. Demographic and Practice Characteristics of Family Physician Survey Participants (n = 2169)**

Demographic Characteristics	n (%)	Practice Characteristics	n (%)
Gender (n = 2169)		Practice Site (n = 1941)	
Female	1257 (58.0)	Hospital/health system-owned medical practice	477 (24.6)
Male	912 (42.0)	Independently-owned medical practice	352 (18.1)
Age (n = 2146)		Managed care/HMO practice	328 (16.9)
Under 40	459 (21.4)	Academic health center/faculty practice	176 (9.1)
40–49	681 (31.7)	Government	435 (22.4)
50–59	567 (26.4)	Workplace clinic	18 (0.9)
60 or Older	439 (20.5)	Other	155 (8.0)
Degree Type (n = 2169)		Practice Size (n = 1930)	
DO	216 (10.0)	Solo practice	132 (6.8)
MD	1953 (90.0)	2–5 providers	449 (23.3)
Race (n = 1930)		6–20 providers	555 (28.8)
American Indian/Alaska Native	8 (0.4)	>20 providers	794 (41.1)
Asian	463 (24.0)	Practice Setting (n = 1935)	
Black or African American	84 (4.4)	Urban (250,000+ population)	985 (50.9)
Native Hawaiian/Other Pacific Islander	22 (1.1)	Micropolitan (20,000–250,000 population)	681 (35.2)
White	1195 (61.9)	Large rural (2,500–19,999 population)	221 (11.4)
Other	158 (8.2)	Small rural/remote (<2,500 population)	48 (2.5)
Ethnicity (n = 1910)		Practice ownership (n = 1932)	
Hispanic or Latino	237 (12.4)	No official ownership stake	1197 (62.0)
Non-Hispanic	1673 (87.6)	Self-employed as a contractor	82 (4.2)
Burnout (n = 2115)		Partial owner or shareholder	449 (23.2)
Yes	1124 (53.1)	Sole owner	133 (6.9)
No	991 (46.9)	Other	71 (3.7)

HMO, Health Maintenance Organization.

lactation room was the only significant gender difference ( $P = .0167$ ).

## Discussion

This study examined gendered differences in the individual actions and organizational-level support FPs have used to combat burnout. We found high rates of burnout in both female and male physicians and that in attempting to address burnout, most respondents (92.5%) reported taking at least 1 personal action. Although both female and male physicians took steps related to time management to address burnout, the personal steps taken by female physicians more often included reducing their overall work hours and employing domestic help, whereas male physicians were more likely to spend more time on hobbies. Our findings validate previous studies showing that female physicians reduce their work hours and spend more time on child care and domestic responsibilities than their male counterparts.<sup>6,7,22–26</sup> Our findings provide insight into the reasons that female physicians often work

fewer hours than their male colleagues, and suggest that the mitigation of female physician burnout may require more wide-ranging elements of support for women than men. Furthermore, our finding that male physicians are less likely to seek therapy may have implications for effectively addressing burnout in men.

Physicians reported a variety of wellness-focused supports offered by their organization; however, many indicated that their organization provided no formal support for worker well-being. Female physicians were more likely than males to report provision of a lactation room, which was not unexpected because female physicians would be more aware of such a support due to a real and perceived need. Despite the time-focused steps taken at the individual level, fewer than 1/4 of all physicians reported access to organizational support that helps manage their time commitments and could lead to better work-life balance.

Although our data do not allow a direct comparison between personal steps and organizational support, these results suggest that physician-led

**Table 2. Personal Steps Taken to Address Burnout by Gender**

Personal Steps Taken	Female (n = 1252)		Male (n = 899)		False Discovery Rate <i>P</i> Value
	n	%	n	%	
Started/maintained a regular exercise or mindfulness regimen	666	53.2	487	54.2	.9016
Reduced my overall work hours or went part time	538	43.0	276	30.7	<.0001
Employed a housekeeper and/or nanny/babysitter	437	34.9	137	15.2	<.0001
Reduced my clinical work hours specifically	374	29.9	252	28.0	.5898
Spent more time on hobbies	367	29.3	328	36.5	.0028
Talked to a professional therapist/counselor	285	22.8	127	14.1	<.0001
Took time off/leave of absence	262	20.9	193	21.5	.9016
Delegated job responsibilities	243	19.4	201	22.4	.2620
Gave up job responsibilities	223	17.8	199	22.1	.0531
Took on significant new job responsibilities which I enjoy	221	17.7	158	17.6	.9633
Participated in formal wellness program	134	10.7	79	8.8	.3237
None	87	6.9	75	8.3	.4054
Joined a support group	59	4.7	24	2.7	.0545

approaches to reduce burnout are more commonly used when compared with organizational support. Although about 21% of all physicians surveyed indicated that their organization offered a formal wellness program, only 10% indicated that they participated in 1. If the factors that contribute to burnout are largely related to organizational or system-level issues,<sup>3</sup> then physician-focused interventions and coping mechanisms cannot adequately address physician burnout; indeed, placing the onus on individual physicians to deal with the consequences of burnout might have the unintended consequence of increasing feelings of burnout.<sup>19</sup>

To understand how various interventions might impact burnout for female and male physicians differently, our future research will explore possible

associations between burnout and both individual approaches and organizational support by gender. In addition, studies that compare personal steps with organizational support to understand if and how they are associated with burnout by gender would advance the ability of policy makers and institutional decision-makers to more effectively support physicians and prevent burnout. For example, we found that over 50% of both male and female physicians participated in exercise regimens; is that associated with a lower risk of burnout, and does a workplace exercise room contribute to reductions in burnout?

This study has several limitations. Although California and Illinois are large states with large and diverse FP workforces, diverse geographies, and a

**Table 3. Organizational Support Provided to Support Worker Well-Being, by Gender**

Organizational Support	Female (n = 1130)		Male (n = 810)		False Discovery Rate <i>P</i> Value
	n	%	n	%	
Appropriate ratio of physicians to nurses/medical assistants	405	35.8	295	36.4	.9016
Access to behavioral health services	392	34.7	259	32.0	.4054
Flexible work hours	266	23.5	192	23.7	.9633
Protected time to complete nonclinical tasks	242	21.4	179	22.1	.9016
Formal wellness program	242	21.4	178	22.0	.9016
None (no support for worker well-being)	235	20.8	160	19.8	.8962
Flexible paid time off	225	19.9	186	23.0	.2620
Lactation room	134	11.9	63	7.8	.0167
Exercise room	96	8.5	88	10.9	.2472
Scribe	78	6.9	68	8.4	.4054

range of patient populations, our results may or may not be generalizable to physicians practicing in other states or in other disciplines. The low response rate and the fact that they are a self-selected group might limit representativeness even within each state. It is possible that physicians who are more likely to be burned out participated, affecting the types and number of personal steps physicians report taking. In addition, the lists of choices for personal steps and for organizational support may not have been comprehensive; although we did offer an “other” category with an open text box to add other items, few physicians selected this option, and those who did most often described items already listed. Finally, our data do not allow for a true comparison between burnout and personal actions versus organizational support because the survey did not collect information about whether physicians used the organizational support offered.

## Conclusions

Because male and female physicians take different individual-level steps to reduce their burnout, effectively addressing the causes of burnout may require different organizational support approaches for female and male physicians. Female physicians take personal steps to address burnout that are more likely to affect working hours and result in the hire of domestic help. This finding has significant financial implications at the individual level, as well as workforce and access implications at the policy level.

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## References

- Shanafelt TD, Hasan O, Dyrbye LN, et al. Changes in burnout and satisfaction with work-life balance in physicians and the general US working population between 2011 and 2014. *Mayo Clin Proc* 2015;90:1600–13.
- Rabatin J, Williams E, Baier Manwell L, Schwartz MD, Brown RL, Linzer M. Predictors and outcomes of burnout in primary care physicians. *J Prim Care Community Health* 2016;7:41–3.
- Rassolian M, Peterson LE, Fang B, et al. Workplace factors associated with burnout of family physicians. *JAMA Intern Med* 2017;177:1036–8.
- Puffer JC, Knight HC, O’Neill TR, et al. Prevalence of burnout in board certified family physicians. *J Am Board Fam Med* 2017;30:125–6.
- Linzer M, Harwood E. Gendered expectations: do they contribute to high burnout among female physicians? *J Gen Intern Med* 2018;33:963–5.
- Templeton KJ. From bench to bedside: how do we improve education in sex- and gender-based health? *J Womens Health (Larchmt)* 2019;28:1599–1600.
- Langballe EM, Innstrand ST, Aasland OG, Falkum E. The predictive value of individual factors, work-related factors, and work-home interaction on burnout in female and male physicians: a longitudinal study. *Stress and Health* 2011;27:73–87.
- Gleichgerricht E, Decety J. Empathy in clinical practice: how individual dispositions, gender, and experience moderate empathic concern, burnout, and emotional distress in physicians. *PLoS One* 2013;8:e61526.
- West CP, Dyrbye LN, Shanafelt TD. Physician burnout: contributors, consequences and solutions. *J Intern Med* 2018;283:516–29.
- Accreditation Council for Graduate Medical Education. Data resource book: academic year 2017–2019. Available from: <https://www.acgme.org/About-Us/Publications-and-Resources/Graduate-Medical-Education-Data-Resource-Book>. Published 2018. Accessed July 29, 2019
- AAMC. 2016 Physician specialty data report. Available from: <https://www.aamc.org/data-reports/workforce/report/physician-specialty-data-report>. Published 2016. Accessed July 29, 2019.
- Willard-Grace R, Knox M, Huang B, Hammer H, Kivlahan C, Grumbach K. Burnout and health care workforce turnover. *Ann Fam Med* 2019;17:36–41.
- Shanafelt TD, Mungo M, Schmitgen J, et al. Longitudinal study evaluating the association between physician burnout and changes in professional work effort. *Mayo Clin Proc* 2016;91:422–31.
- Linzer M, Poplau S, Grossman E, et al. A cluster randomized trial of interventions to improve work conditions and clinician burnout in primary care: results from the Healthy Work Place (HWP) Study. *J Gen Intern Med* 2015;30:1105–11.
- Panagioti M, Panagopoulou E, Bower P, et al. Controlled interventions to reduce burnout in physicians: a systematic review and meta-analysis. *JAMA Intern Med* 2017;177:195–205.
- West CP, Dyrbye LN, Rabatin JT, et al. Intervention to promote physician well-being, job satisfaction, and professionalism: a randomized clinical trial. *JAMA Intern Med* 2014;174:527–33.

17. West CP, Dyrbye LN, Erwin PJ, Shanafelt TD. Interventions to prevent and reduce physician burnout: a systematic review and meta-analysis. *Lancet* 2016;388:2272–81.
18. Shanafelt TD, Noseworthy JH. Executive leadership and physician well-being: nine organizational strategies to promote engagement and reduce burnout. *Mayo Clin Proc* 2017;92:129–46.
19. Montgomery A. The inevitability of physician burnout: implications for interventions. *Burn Res* 2014;1:50–6.
20. West CP, Dyrbye LN, Satele DV, Sloan JA, Shanafelt TD. Concurrent validity of single-item measures of emotional exhaustion and depersonalization in burnout assessment. *J Gen Intern Med* 2012;27:1445–52.
21. Benjamini Y, Hochberg Y. Controlling the false discovery rate: a practical and powerful approach to multiple testing. *J R Stat Soc B* 1995;57:289–300.
22. Bergman B, Ahmad F, Stewart DE. Physician health, stress and gender at a university hospital. *J Psychosom Res* 2003;54:171–8.
23. McMurray JE, Linzer M, Konrad TR, Douglas J, Shugerman R, Nelson K. The work lives of women physicians results from the physician work life study. The SGIM Career Satisfaction Study Group. *J Gen Intern Med* 2000;15:372–80.
24. Jolly S, Griffith KA, DeCastro R, Stewart A, Ubel P, Jagsi R. Gender differences in time spent on parenting and domestic responsibilities by high-achieving young physician-researchers. *Ann Intern Med* 2014;160:344–353.
25. Adesoye T, Mangurian C, Choo EK, et al. Perceived discrimination experienced by physician mothers and desired workplace changes: a cross-sectional survey. *JAMA Intern Med* 2017;177:1033–6.
26. Ly DP, Jena AB. Sex differences in time spent on household activities and care of children among US physicians, 2003–2016. *Mayo Clin Proc* 2018;93:1484–7.