


Workplace Wellness Support Enhances Health and Mental Well-Being in Optometrists

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Purpose: To (1) assess rates of burnout in Fellows of the American Academy of Optometry and (2) assess associations among perceptions of workplace wellness support with lifestyle behaviors and health and wellness indicators (ie, anxiety, depression, stress, burnout, mattering to the workplace, and workplace is not stressful).

Methods: A survey collected sample characteristics and outcomes of interest from 321 Fellows.

Results: Thirty-two percent reported burnout. Females and those working in academia were significantly more likely to report being burned out at work. Compared to Fellows with low perceptions of workplace wellness support, Fellows with high perceptions of support were significantly more likely to report mattering to their workplace, a non-stressful workplace environment, and no burnout.

Conclusion: Promoting workplace wellness support may improve perceptions of mattering, stressful workplace environments, and rates of self-reported burnout in optometrists.

Keywords: workplace wellness, optometry, burnout, mental health, health behaviors

Introduction

Burnout and poor well-being are widespread within the healthcare workforce. The COVID-19 pandemic exacerbated the issue. A cross-sectional study performed from April 2020 to March 2021 with 43,026 healthcare workers from 206 healthcare organizations reported an overall burnout rate of 50%.¹ Burnout is recognized by the World Health Organization, Centers for Disease Control and Prevention, US Surgeon General, and the National Academy of Medicine as a major public health epidemic, impacting healthcare workers' mental and physical health as well as healthcare quality, safety, and patient outcomes.²⁻⁵

Burnout typically develops with prolonged exposure to unmitigated work-induced stress and is comprised of three key components: (1) emotional exhaustion, (2) depersonalization, and (3) a sense of reduced work accomplishments. Further, burnout increases an individual's risk for developing depression and anxiety in addition to an intent to leave their job or occupation.^{1,6} Conversely, well-being is a general state of good health and happiness that is built through practicing healthy lifestyle behaviors such as eating five or more fruit and vegetables per day, exercising 150 minutes or more per week, sleeping 7 or more hours a night, engaging in no or light alcohol consumption, and refraining from tobacco use. The US Surgeon General, National Institute for Occupational Safety and Health, and the National Academy of Medicine promote the institutionalization of well-being (ie, creating and sustaining cultures of wellness) to protect and improve healthcare workers' mental health and workforce shortages.²⁻⁵ To create cultures of wellness, institutions must actively support engagement in healthy lifestyle behaviors at an institutional level and demonstrate to staff that they matter to the workplace.⁷⁻¹⁰

There is a large body of research assessing the prevalence and associations among burnout, physical health, and mental health and well-being concerns in physicians, nurses, and health science students,¹⁰⁻¹⁴ however, there is a paucity of studies with optometrists. Only two burnout and well-being studies specific to optometry were identified when using

the search term “burnout optometry” in PubMed with the publication years set between 2019 and 2024. Using a cross-sectional study design, Bentley et al investigated the prevalence of burnout, depression, anxiety, and stress in Australian optometrists prior to the COVID-19 pandemic in 2019.¹⁵ Responses were received from 9% (n = 505) of registered optometrists. More than half (56%) screened positive for burnout, almost one-third screened positive for moderate to extremely severe depression and anxiety, and 22% screened positive for moderate to severe stress. Also using a cross-sectional study design, Patel et al surveyed faculty and students at the Colleges of Pharmacy and Optometry and the School of Physician Assistant Studies at Marshall B Ketchum University in California to determine their risk for burnout.¹⁶ Zero percent of optometry faculty and students were at high risk for burnout, with most (71%) being at average risk. Neither of the studies investigated lifestyle behaviors in optometrists, nor did they assess optometrist perceptions of workplace wellness cultures and mattering.

Considering the limited health and well-being research in optometrists, a representative from the American Academy of Optometry wanted to survey Fellows of the Academy to obtain a broader understanding. Therefore, the aims of this study were:

1. To describe the characteristics of the Fellows via age, gender, race/ethnicity, and employer setting; and, lifestyle behaviors, depression, anxiety, perceived stress, burnout, perceptions of workplace wellness cultures, mattering, and likelihood of leaving organization or profession.
2. To assess differences in rates of burnout by age, gender, hours worked per day, and employer setting (non-academic vs academic).
3. To assess the associations among perceptions of workplace wellness support with lifestyle behaviors and health and wellness indicators (ie, low perceived stress, no anxiety, no depression, no burnout, mattering to the workplace, and non-stressful workplace).

The specific study hypotheses were:

H1: There is a significant difference in rates of burnout by age, gender, hours worked per day, and employer setting.

H2: There is a significant relationship between perceptions of workplace wellness support (independent variable) and lifestyle behaviors and health and wellness indicators (dependent variables).

Materials and Methods

This research was reviewed and deemed exempt by the authors’ Institutional Review Board and complied with the Declaration of Helsinki. Informed consent was collected digitally. This study followed STROBE Guidelines for cross-sectional studies.

Research Design

This study used a cross-sectional, descriptive design. Data collection occurred through an anonymous online survey hosted on Qualtrics XM (Qualtrics, Provo, UT).

Sample and Setting

The population of interest was Fellows of the American Academy of Optometry. This was a convenience sample. Most Fellows are non-Hispanic White (66.4%), female (52%), 30–59 years of age (67.2%), work in patient care (67.6%), and reside in the United States (91.4%). Eligibility criteria included active Fellowship status with the Academy. Exclusion criterion was no longer working as an optometric professional (ie, retired with Fellowship standing).

Recruitment communication was distributed via Email to all Academy Fellows (N = 4,700) on April 28, 2023. A reminder Email to complete the survey was sent on May 9, 2023, and the survey was closed to data collection on May 21, 2023.

Survey and Measures

Completion of the survey took about 10–15 minutes. It contained six questions to ascertain sample characteristics (ie, mode of practice, race/ethnicity, age, gender, relationship status, number of children living at home [if any], hours

worked per day, and primary employer setting). The survey also contained an additional 11 measures to assess the main outcomes of interest: healthy lifestyle behaviors, depression, anxiety, stress, burnout, perceived workplace wellness culture and mattering, and likelihood of leaving organization or profession. Shorted versions of valid measures for depression, anxiety, stress, and burnout were used to lessen respondent burden. These are commonly used scales in health and well-being research.^{9,10,14}

Healthy Lifestyle Behaviors

The healthy lifestyle behavior questions were developed by the study team using guidelines from the Centers for Disease Control and Prevention.¹⁷ The questions inquire about the quantity of fruits and vegetables eaten/day, minutes of physical activity obtained/week, hours of sleep obtained/night, and degree of alcohol and tobacco use. Participants are meeting healthy lifestyle behavior guidelines when eating five or more fruit/vegetables a day, exercising 150 minutes or more a week, sleeping 7 or more hours a night, engaging in light alcohol consumption (three drinks per week or less), and refraining from smoking tobacco (not a current smoker).

Patient Health Questionnaire-2

The Patient Health Questionnaire-2 is a valid, reliable, and widely used scale derived from the Patient Health Questionnaire-9. The 2-item scale screens for clinically relevant depressive symptoms in instances where brevity is necessary and has a sensitivity of 83% and specificity of 92% for major depression and an area under the curve of 0.93 (vs 0.95 for the PHQ-9).¹⁸ Using two items, the instrument asks how frequently participants have (1) had little interest in doing things and (2) felt down, depressed, or hopeless over the past two weeks. A 4-point Likert-type scale is used: 0 = *not at all*, 1 = *several days*, 2 = *more than half the days*, and 3 = *nearly every day*. The two items are then summed, with a score ≥ 3 indicating a positive depression screening. As this is a two-item measure, alpha is not an appropriate measure of internal consistency. As such, for the current sample we provide the correlation between the two items ($r=0.64$) and the Spearman Brown ($\rho=0.78$), which indicate acceptable internal consistency.

Generalized Anxiety Disorder-2

The Generalized Anxiety Disorder-2 is a widely used valid and reliable scale derived from the Generalized Anxiety Disorder-7. Both screen for clinically relevant anxiety symptoms, and the 2-item scale has a sensitivity of 86% and specificity of 83% for generalized anxiety disorder. There is no statistical difference between the area under the curve for the 2-item (0.908) and 7-item (0.905) scales, indicating both are valid for screening for anxiety.¹⁹ The 2-item instrument asks how frequently over the past two weeks participants (1) feel nervous, anxious, or on edge and (2) cannot control worrying. A 4-point Likert-type scale is used: 0 = *not at all*, 1 = *several days*, 2 = *more than half the days*, and 3 = *nearly every day*. Like the Patient Health Questionnaire, the items are summed. A score ≥ 3 indicates a positive screening for anxiety. Item correlation for the sample was 0.61 and the Spearman Brown ρ was 0.76. This indicates acceptable internal consistency.

Perceived Stress Scale-4 (PSS-4)

The Perceived Stress Scale-4 is a valid and reliable scale used to measure perceived stress level during the past month.²⁰ There are three versions of the Perceived Stress Scale: 14-item, 10-item, and 4-item. The PSS-4 is used when brevity is important and asks: (1) “How often have you felt that you were unable to control the important things in your life?; (2) How often have you felt that you were unable to handle your personal problems?; (3) How often have you felt that things were going your way?; and (4) How often have you felt difficulties were piling up so high that you could not overcome them? A 5-point Likert-scale is used: *never* = 0, *almost never* = 1, *sometimes* = 2, *fairly often* = 3, and *very often* = 4. Item 3 is reverse coded to agree with the direction of the other items and a sum score of the four items is calculated. A score < 4 indicates no to little stress. Cronbach’s α for this scale range from 0.60 to 0.82²⁰ and was 0.65 in the current sample with an omega total of 0.70. This indicates acceptable internal consistency.

1-Item Burnout

The Dolan et al non-proprietary 1-item burnout measure assesses burnout.²¹ The measure is a valid substitute for the proprietary, 1-item Maslach Burnout Inventory: Emotional Exhaustion (ie, “I feel burned out from my work”).²¹ The

Dolan et al item is, “Overall, based on your definition of burnout, how would you rate your level of burnout?” Dolan et al determined that, between the two measures, the inter-rater agreement is 0.70, signifying 70% greater agreement than by chance alone. Responses use a 5-category ordinal scale: *I enjoy my work. I have no symptoms of burnout* = 1; *Occasionally I am under stress, and I do not always have as much energy as I once did, but I do not feel burned out* = 2; *I am definitely burning out and have one or more symptoms of burnout, such as physical or emotional exhaustion* = 3; *The symptoms of burnout that I am experiencing will not go away. I think about frustration at work a lot* = 4; and *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* = 5. A score ≥ 3 indicates the presence of burnout.

Workplace Wellness Culture and Mattering

Four questions were developed to evaluate perceptions of workplace wellness cultures and mattering: (1) How supportive is your place of work of personal wellness? (2) Is your place of work a stressful environment? (3) How much do you believe that you can engage in healthy lifestyle behaviors on a day-to-day basis. (4) I feel like I matter to my workplace. Responses used a 5-point Likert-type scale: 0 = *not at all*, 1 = *a little*, 2 = *somewhat*, 3 = *moderately so*, and 4 = *very much (so)*. These questions were created by the study team after assessing existing valid and reliable measures, ie, the Perceived Wellness Culture and Environment Support Scale,²² Healthy Lifestyle Beliefs Scale,²³ and Work Mattering Scale²⁴ and were used in prior studies.^{10,14}

Likelihood of Leaving Organization or Profession

Three questions developed by the study team were used to assess the likelihood of participants leaving their organization or profession. (1) Within the next year, how likely are you to leave your organization? (2) Within the next year, how likely are you to leave your profession entirely? (3) Within the next year, how likely are you to look for another job within your organization? Response options for the three questions were *very unlikely*, *somewhat unlikely*, *not sure*, *somewhat likely*, *very unlikely*, and *not applicable*.

Statistical Analysis

To describe the overall health and well-being of Fellows of the American Academy of Optometry (Aim 1), descriptive statistics were used to summarize sample characteristics and outcomes of interest (healthy lifestyle behaviors, depression, anxiety, stress, burnout, perceived workplace wellness culture, mattering, and likelihood of leaving the organization or profession).

To assess differences in rates of burnout by age, gender, hours worked per day, and employer setting (non-academic vs academic; Aim 2, H1), we conducted a series of χ^2 tests. As each variable of interest was categorical, we elected to dichotomize all variables of interest in this analysis. Age was dichotomized into over 40 or under 40 years of age. Gender was dichotomized into female or not female; hours worked was dichotomized into working more than eight hours a day or not. Employer setting was dichotomized into academic or not. Each χ^2 test assessed if the proportion of responses in a given category differed significantly by burnout status or not.

To assess the associations among perceptions of workplace wellness cultures with lifestyle behaviors and health and wellness indicators (no depression, no anxiety, low perceived stress, no burnout, mattering to the workplace, and non-stressful work environment; Aim 3, H2), a series of logistic regressions were conducted. Perceptions of supportive work environments were dichotomized as low or high to accomplish this. Participants selecting *not at all* or *somewhat* to the question “How supportive is your place of work of personal wellness” were grouped into the low category, while participants selecting *moderately so* to *very much* were grouped into the high category. Using workplace personal wellness support as the primary independent variable of interest, we examined the association with each of the dependent (outcome) variables to determine if positive wellness was associated with positive health outcomes. The outcomes included both healthy lifestyle behaviors (≥ 7 hrs of sleep per night, ≥ 150 mins physical activity per week, ≥ 5 servings of fruits and vegetables per day, no tobacco, and no/light alcohol use) and health and wellness indicators (low stress, no anxiety, no depression, no burnout, matter in the workplace, workplace is not stressful). Additionally, to control for

variability associated with demographic differences, we included three dichotomous covariates in the model gender (identifying as female), age (being under 40), and academic (being employed in an academic setting).

Cases with missing data were removed for analysis. As this study relies on a convenience sample and does not seek to show causal relationships, we felt multiple imputations were not appropriate. R 4.4.0 (R Core Team, 2024)²⁵ was used for all analyses.

Results

Descriptive Findings (Aim 1)

Of the 4,700 Fellows contacted, 321 responded (response rate = 7%). Most were non-Hispanic White (76%), female (51%), in the 30–59 age range (62%), and working in academia (46%; Table 1). These sample demographics are mostly

Table 1 Sample Characteristics (N = 321)

	N	%
<u>Age</u>		
Missing	1	0.3%
<30	5	2%
30–39	65	20%
40–49	65	20%
50–59	71	22%
60+	103	32%
Prefer Not to Answer	11	3%
<u>Gender</u>		
Missing	2	0.6%
Female	163	51%
Gender Non-Conforming	0	0%
Male	149	46%
Non-Binary	0	0%
Prefer Not to Answer	7	2%
<u>Race/Ethnicity</u>	5	2%
Missing		
Non-Hispanic White	244	76%
Non-Hispanic Black	7	2%
Hispanic	4	1%
Asian	39	12%
Other	22	7%
<u>Currently Married/In a relationship</u>		
Missing	3	0.9%
No	40	13%
Yes	270	84.1%
Prefer Not to Answer	8	3%
<u>Having children (age<21yrs) living at home</u>		
Missing	175	55%
No	0	0%
Yes	146	46%
<u>Hours of work per day</u>		
<8	42	13%
8–10	235	73%
>10	44	14%

(Continued)

Table 1 (Continued).

	N	%
Primary Employer Setting		
Missing	1	0.3%
OD Only Private Practice	59	18%
OD/MD Private Practice	13	4%
Corporate Optometry	9	3%
Health Maintenance Organization	4	1%
Veteran Administration	29	9%
Academia	146	46%
Industry	12	4%
Other	23	7%

Abbreviations: OD, Doctor of Optometry; MD, Doctor of Medicine.

representative of the Fellows of the Academy. However, the sample had more academic respondents (46%) than the typical population (24%).

Lifestyle Behaviors and Health and Wellness Indicators

In terms of healthy lifestyle behaviors, the majority of Fellows self-reported obtaining 7+ hours of sleep per night (58%), not smoking (98%), and consuming three or less alcoholic beverages per week (67%; [Table 2](#)). However, 20% reported

Table 2 Lifestyle Behaviors and Health and Wellness Indicator Outcomes

	N	%
Lifestyle Behaviors		
Hours of sleep per night		
<7 hours	136	42%
7+ hours	185	58%
Minutes of moderate physical exercise per week		
<150 minutes	199	62%
150+ minutes	121	38%
Servings of fruits/vegetables per day		
<5 servings	285	89%
5+ servings	36	11%
Current smoker		
No	313	98%
Yes	8	3%
Alcohol Use		
Never	44	14%
Light drinker (3 times per week or less)	214	67%
Heavy drinker (4+ times per week)	63	20%
Mental Health		
PHQ-2		
<3 (no depression)	269	84%
≥3	12	4%
Missing	40	13%

(Continued)

Table 2 (Continued).

	N	%
<u>GAD-2</u>		
<3 (no anxiety)	239	75%
≥3	29	9%
Missing	53	17%
<u>PSS-4</u>		
0–4 (no/little stress)	78	24%
5–12	165	51%
Missing	78	24%
<u>Having burnout</u>		
No	210	65%
Yes	103	32%
Missing	8	3%

Abbreviations: PHQ-2, Patient health questionnaire 2-Item; GAD-2, Generalized Anxiety Disorder 2-Item; PSS-4, Perceived Stress Scale 4-Item.

heavy drinking. A small percentage of Fellows reported getting the required minutes of exercise per week (38%) and 5+ servings of fruits and vegetables per day (11%).

Few Fellows screened positive for depression (4%) or anxiety (9%). However, many respondents indicated experiencing high levels of stress (51%) and burnout (32%).

Workplace Wellness Culture, Mattering, and Likelihood of Leaving

Just over half of the Fellows (54%) reported that their place of work was moderately to very much supportive of their personal wellness (Table 3). Few responded that their place of work was a very stressful environment (13%), with most being clustered in the somewhat to moderately so range (53%). The majority of Fellows believed that they could engage in healthy lifestyle behaviors on a day-to-day basis in their workplace moderately to very much so (64%). Most Fellows

Table 3 Workplace Wellness Culture, Mattering, and Likelihood of Leaving Organization or Profession

	N	%
How supportive is your place of work of personal wellness?		
Missing	9	3%
Not at all	25	8%
A little	48	15%
Somewhat	65	20%
Moderately so	104	32%
Very much	70	21%
Is your place of work a stressful environment?		
Missing	9	3%
Not at all	24	8%
A little	77	24%
Somewhat	86	27%
Moderately so	85	27%
Very much	40	13%
How much do you believe that you can engage in healthy lifestyle behaviors on a day-to-day basis in your workplace?		
Missing	6	2%
Not at all	5	2%
A little	26	8%

(Continued)

Table 3 (Continued).

	N	%
Somewhat	78	24%
Moderately so	120	37%
Very much	86	27%
I feel like I matter to my workplace		
Missing	9	3%
Not at all	13	4%
A little	20	6%
Somewhat	45	14%
Moderately so	99	31%
Very much so	135	42%
Within the next year, how likely are you to leave your organization?		
Missing	8	3%
Very unlikely	194	60%
Somewhat unlikely	43	13%
Not sure	38	12%
Somewhat likely	20	6%
Very Likely	18	6%
Within the next year, how likely are you to leave your profession entirely?		
Missing	7	2%
Very unlikely	246	77%
Somewhat unlikely	26	8%
Not sure	25	8%
Somewhat likely	8	3%
Very Likely	9	3%

reported that they moderately to very much so felt that they mattered to their workplace (73%). Sixty percent of Fellows were very unlikely to leave their organization or leave their profession (77%) over the next year.

Differences in Burnout by Age, Gender, Hours Worked per Day, and Employer Setting (Aim 2; H1)

To address Aim 2/H1, we conducted a series of χ^2 tests to see if significant differences in burnout were reported by different types of Fellows' characteristics. Full results are presented in Table 4. In brief, we found that female respondents ($\chi^2 = 16.5$, $df = 1$, $p < 0.001$) and those working in academia ($\chi^2 = 5.6$, $df = 1$, $p = 0.018$) were significantly more likely to report being burned out at work. No difference was observed for those under the age of 40 or those working more than 8 hours a day.

Table 4 Differences in Self-Reported Burnout by Fellow Characteristics

	Burnout		No Burnout		χ^2	df	p
	n	%	n	%			
Female	70	68%	91	44%	16.5	1	<0.001
Working > 8 hrs/day	73	71%	128	61%	2.8	1	0.095
Work in Academia	58	56%	88	42%	5.6	1	0.018
Under 40 years of age	52	53%	83	41%	3.6	1	0.056

The Association Between Workplace Wellness Support and Lifestyle Behaviors and Health and Wellness Indicators (Aim 3, H2)

Table 5 displays the rate of low versus high workplace wellness support by healthy lifestyle behaviors and health and wellness indicators. For healthy lifestyle behaviors, Fellows who self-reported having a high level of workplace wellness support had higher rates of sleeping ≥ 7 hours per night and ≥ 150 minutes of moderate activity per week than Fellows who reported having a low level of workplace wellness support. Only rates of no depression (86%) were higher in the low workplace wellness support group when compared to the high level of workplace well support group (83%).

Logistic regression analyses of the association between workplace wellness and healthy lifestyle behaviors are presented in Table 6, and between workplace wellness support and health and wellness indicators are presented in Table 7. In summary, controlling for the variability associated with gender, age, and working in academia, Fellows reporting perceptions of high support were significantly more likely to report mattering in their workplace (OR = 6.54; 95% CI: 3.59—12.42; $p < 0.001$). Additionally, Fellows reporting high levels of perceived workplace support were significantly more likely to report no burnout (OR = 2.84; 95% CI: 1.69—4.8; $p < 0.001$) and a non-stressful workplace (OR = 2.0; 95% CI: 1.23—3.27; $p = 0.005$). No significant associations were observed for healthy lifestyle behaviors, depression, perceived stress, or anxiety.

Discussion

Overall, findings from this study revealed that Fellows from the American Academy of Optometry had mostly positive health and well-being outcomes. Over half slept seven or more hours per night, and almost 100% reported no tobacco use. Like other healthcare professionals,^{26–29} most Fellows were not obtaining an appropriate amount of moderate physical activity per week or eating the recommended number of fruits and vegetables per day. Improving such behaviors can help prevent chronic diseases, which now affect 60% of Americans.³⁰ Moreover, 20% reported heavy alcohol use—this is higher than rates in reported in a study with 665 pharmacists (14% heavy alcohol use),²⁸ and slightly lower than rates reported in a study with 894 dentists (22% heavy alcohol use).²⁶ According to a recent report released by The US Surgeon General, a causal relationship exists between alcohol use and cancer, yet less than half of Americans are aware of the correlation.³¹ Since alcohol use is escalating in healthcare professionals, it is important to provide education about

Table 5 Level of Workplace Wellness Support by Lifestyle Behaviors and Health and Wellness Indicators

Outcomes	Workplace Wellness Support	
	Low (n=138)	High (n=174)
Healthy Lifestyle Behaviors	n(%)	n(%)
≥ 7 hours of sleep per night	73(53%)	107(62%)
≥ 150 mins moderate activity per week	49(36%)	66(38%)
≥ 5 servings of fruit / veg per day	15(11%)	18(10%)
No tobacco	136(99%)	168(97%)
No / light alcohol	83(60%)	94(54%)
Health and Wellness Indicators	n(%)	n(%)
Low stress	28(20%)	49(28%)
No anxiety	98(71%)	135(78%)
No depression	119(86%)	144(83%)
No burnout	40(29%)	133(76%)
Mattering in the workplace	78(57%)	156(90%)
Workplace is not stressful	69(50%)	118(68%)

Table 6 Associations Between Perceived Support of Wellness at Place of Employment and Healthy Lifestyle Behaviors

Healthy Lifestyle Behaviors		Odds Ratio	Lower 95% CI	Upper 95% CI	p
≥ 7 hours of sleep per night					
	Wellness	1.35	0.84	2.17	0.220
	Gender	1.20	0.73	1.98	0.466
	Age	1.66	1.02	2.72	0.043*
	Academic	0.75	0.46	1.21	0.240
≥ 150 mins moderate activity per week					
	Wellness	1.07	0.66	1.75	0.783
	Gender	0.54	0.32	0.90	0.019*
	Age	1.05	0.63	1.73	0.855
	Academic	0.98	0.59	1.61	0.922
≥ 5 servings of fruit / veg per day					
	Wellness	0.76	0.34	1.70	0.507
	Gender	2.83	1.19	7.33	0.023*
	Age	0.65	0.28	1.46	0.302
	Academic	1.03	0.45	2.32	0.947
No tobacco					
	Wellness	0.43	0.06	1.99	0.322
	Gender	6.41	1.04	124.49	0.093
	Age	4.08	0.68	78.51	0.200
	Academic	0.49	0.11	2.20	0.337
No/light Alcohol					
	Wellness	0.87	0.54	1.40	0.564
	Gender	1.66	1.02	2.72	0.043*
	Age	1.26	0.77	2.04	0.353
	Academic	1.05	0.65	1.70	0.850

Notes: Significance indicators * p<0.05.

the dangers of heavy alcohol use, correct misperceptions about drinking, and equip providers with cognitive-behavioral and coping skills to build mental resiliency as excessive alcohol use is often used to regulate stress and anxiety.³²

The rate of burnout for Fellows from the American Academy of Optometry was 32%, which is lower than the 50% burnout reported in other healthcare workers by Rotenstein et al.¹ The higher rates of burnout described by Rotenstein et al likely occurred because their data was collected during COVID-19 restrictions when workplace strains on healthcare workers were much higher, especially for frontline workers. In terms of depression, the prevalence in the Fellows was low (4%). However, clinical anxiety affected 9%. These frequencies are lower than what was reported in Australian optometrists prior to the COVID-19 pandemic (30% moderate to extremely severe depression and 32% moderate to extremely severe anxiety).¹⁵ The dissimilarity in mental health outcomes between the Fellows and the Australian optometrists may have been related to age: Fellows most frequently reported being 60 years of age or older, while the Australian optometrist most frequently reported being 25–29 years of age. Research findings commonly report that younger people have more mental health issues than their older peers.¹⁵ Nevertheless, one-out-of-three Fellows in the current study reported burnout, with females and those working in academia significantly more likely to indicate feelings of burnout. Worksites need to urgently address modifiable factors that contribute to burnout, such as understaffing, lack of flexibility at work, poor workplace relationships, work overload, and problems with electronic health records, as

Table 7 Associations Between Perceived Support of Wellness at Place of Employment and Health and Wellness Indicators

Health and Wellness Indicators		Odds Ratio	Lower 95% CI	Upper 95% CI	p
Low stress					
	Wellness	1.55	0.87	2.80	0.142
	Gender	0.52	0.29	0.94	0.032*
	Age	1.22	0.68	2.21	0.516
	Academic	0.66	0.37	1.18	0.163
No anxiety					
	Wellness	2.06	0.91	4.83	0.086
	Gender	0.40	0.14	1.02	0.067
	Age	0.50	0.20	1.17	0.119
	Academic	0.70	0.30	1.60	0.399
No depression					
	Wellness	1.47	0.41	5.49	0.553
	Gender	3.48	0.94	13.70	0.063
	Age	0.15	0.02	0.62	0.020*
	Academic	0.16	0.02	0.69	0.027*
No burnout					
	Wellness	2.84	1.69	4.80	<0.001***
	Gender	0.39	0.22	0.68	<0.001***
	Age	0.79	0.46	1.34	0.377
	Academic	0.83	0.49	1.42	0.501
Mattering in the workplace					
	Wellness	6.54	3.59	12.42	<0.001***
	Gender	0.60	0.32	1.12	0.110
	Age	1.08	0.60	1.97	0.799
	Academic	0.86	0.47	1.56	0.616
Workplace is not stressful					
	Wellness	2.00	1.23	3.27	0.005**
	Gender	0.50	0.30	0.84	0.009**
	Age	0.82	0.50	1.35	0.436
	Academic	1.01	0.61	1.66	0.984

Notes: Significance indicators * p<0.05; ** p<0.01; *** p<0.001.

burnout is associated with disengagement, medical errors, and intent to leave.^{12,28,33} In addition, strategies to decrease mental health stigma should be implemented so that any optometrist suffering from depression or anxiety can seek appropriate treatment.

Feelings of burnout and mattering were linked to the level of perceived workplace wellness support. Fellows who perceived high workplace wellness support were 2.8X more likely not to report burnout and 6.5X more likely to report mattering to their workplace when compared to Fellows who perceived low workplace wellness support. These findings are similar to prior studies highlighting the importance of creating and sustaining cultures of wellness at an organizational level.^{10,27,29}

Implications for Clinical Practice

To our knowledge, this is the first study to obtain a comprehensive overview of the state of health, well-being, and perceived workplace wellness cultures in Fellows of the American Academy of Optometrists, most of whom practice in the United States. Research detailing the clinical implications of poor well-being specific to optometrists is parsimonious. However, extrapolating potential implications is possible by examining the literature from other healthcare professions. In a systematic review and meta-analysis with 20 studies concerning nurse burnout and organizational outcomes, burnout was inversely associated with patient safety, quality of care, organizational commitment, work productivity, and patient satisfaction.¹² In pharmacists, feelings of burnout doubled the concern of having made a medication error in the last three months.²⁸ While in academic physicians, burnout was associated with an intent to leave their job within the next two years.³³ In the current study, most optometrists were very unlikely to leave their organization or profession within the next year; however, a third reported burnout. Routine screening for burnout along with strategies to address root causes of burnout is necessary to help prevent mental health problems and job turnover.

Specific guidelines for prioritizing wellness in the workplace are accessible through the Centers for Disease Control and Prevention, US Surgeon General, and the National Academy of Medicine.^{3–5} These guidelines all support the creation of a dedicated wellness team, a review of internal policies and procedures to determine how they support well-being, open communication between leadership and staff, development of comprehensive evidence-based wellness programs, and regular assessment of well-being outcomes (burnout, anxiety, depression, stress, etc). Equally important is having leaders that create cultures of support, trust, and mattering. Leaders should promote mental health awareness and prioritize psychological health and stress management in their staff.⁸

Workforce predictions suggest an increased need for eye care professionals as the rate of the optometric workforce growth is higher than the rate of population growth.^{34,35} Promoting wellness cultures in the optometry workplace is essential for sustaining and growing the workforce as job seekers in the United States continue to express the importance of employers that support their mental well-being.³⁶ Further, it is a strategy recommended by the US Surgeon General to reduce burnout and create a thriving healthcare workforce.⁴

Implications for Research

Future research should expand the sample of interest to optometrists not associated with Fellows of the American Academy of Optometry. A national random sample would also help to strengthen the findings. This study provided a high-level overview of perceived workplace wellness support and mental and physical health outcomes. More in-depth research is needed to specifically identify root causes of burnout and poor wellness in optometrists. Most studies currently focus on other healthcare professionals and the evidence-based interventions available are directed at the healthcare workforce as whole, not specific to optometrists and their unique stressors.

Limitations

The findings in this study cannot be generalized to the larger optometrist population. Random sampling was not used for participant selection, and only Fellows from the American Academy of Optometry were contacted for recruitment. Most participants indicated that their primary work setting was academia; therefore, results are biased towards academics and should be interpreted with care. Shortened scales to measure depression, anxiety, stress, and burnout were used to lessen respondent burden; this may have limited the ability to capture the issues in more depth, especially for burnout which used a 1-item scale. However, the shortened scales have been validated and are valid replacements for the full-length scales. The unvalidated scales, Healthy Lifestyle Behaviors, Workplace Wellness, Mattering, and Likelihood of Leaving Organization or Profession also present a limitation. Because the survey focused on health and well-being, it is possible that those who chose to complete the survey were already personally invested in these topics and more likely to be physically and mentally well than those who decided not to respond. Numerous respondents did not respond to the measures for depression ($n = 40$ [13%]), anxiety ($n = 53$ [17%]), and perceived stress ($n = 78$ [24%]). Mental health stigma is prevalent in healthcare professionals and many fear loss of their licenses if a mental health problem is disclosed,³⁷ which could partly explain why these types of questions were skipped. To normalize discussing mental

health, it is imperative for workplaces to decrease mental health stigma. Despite these limitations, the study is valuable due to the paucity of health and well-being research in the optometry workforce.

Conclusion

The findings of the current study contribute to the growing wellness culture research in health care and add weight to the importance of building a high level of workplace wellness cultures and support for healthcare professionals.

Data Sharing Statement

The datasets for the current study are available from the corresponding author upon reasonable request.

Ethics Approval and Informed Consent

The Ohio State University Institutional Review Board is the IRB of record and deemed the study exempt (2023E0288). Informed consent was collected digitally prior to study commencement.

Consent for Publication

Not applicable as patient images, videos, recordings etc were not used in this study or publication.

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Author Contributions

All authors made a significant contribution to the work reported, whether that is in the conception, study design, execution, acquisition of data, analysis and interpretation, or in all these areas; took part in drafting, revising or critically reviewing the article; gave final approval of the version to be published; have agreed on the journal to which the article has been submitted; and agree to be accountable for all aspects of the work.

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Disclosure

Dr. Jeffrey Walline is a Fellow and the President of the American Academy of Optometry. The remaining authors have no competing interests to declare for this work.

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