



Job Satisfaction, Well-Being, and Burnout among Ophthalmology Educators

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Abstract

Purpose This article assesses the prevalence of burnout among ophthalmology educators and identifies opportunities to improve well-being in this population.

Methods The research team conducted a cross-sectional study using an institutional review board-exempt survey addressing the domains of the Maslach Burnout Inventory, intent to leave, and interest in wellness activities. Survey participants included ophthalmology residency program directors (PDs) and associate PDs (APDs) who are members of the Association of University Professors of Ophthalmology (AUPO). Analysis involved a top-box approach.

Results Surveys were sent to 175 members with a response rate of 38.9%. Percentages of survey respondents reporting either (1) “never” or (2) “less than a few times per year” when asked to self-assess for certain manifestations of burnout are as follows: “considering residents as impersonal objects” (95.2%), “becoming more callous towards people” (90.3%), and “becoming emotionally hardened” (80.6%). Approximately 65% of ophthalmology educators reported never considering or rarely considering leaving their position in the year prior to completing the survey. For wellness promotion among AUPO educators, the greatest interest was in small group mentoring sessions (85%) and webinars on wellness-related topics (70%).

Conclusion The prevalence of burnout symptoms among ophthalmology educators compares favorably to educators from other specialties. Ophthalmology PDs and APDs demonstrate a greater degree of personal accomplishment than do their cohorts within other specialties, suggesting a decreased likelihood of burnout onset among ophthalmology educators. Furthermore, our study’s job satisfaction data reveal a high degree of satisfaction among ophthalmology PDs and APDs.

Keywords

- ▶ ophthalmology educators
- ▶ burnout
- ▶ wellness
- ▶ survey study

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Wellness, resilience, and burnout prevention are gaining increased attention within medicine.¹ Burnout is defined as “exhaustion of physical or emotional strength or motivation usually as a result of prolonged stress or frustration.”² Additionally, the Maslach Burnout Inventory (MBI) defines the “burnout syndrome” as having three core elements: emotional exhaustion, depersonalization, and feelings of low personal accomplishment.³ The ever-increasing stressors encountered at work can potentially lead to physicians’ personal lives being affected negatively as well.⁴ With burnout rates on the rise, physicians are at an increased risk for premature retirement, career changes, medical errors, and suicide.⁵

While burnout is present throughout the medical community, residency program directors (PDs) and associate PDs (APDs) bear additional responsibilities related to resident education and professional development. Recognizing the importance of fostering care and compassion in health care professionals and trainees, the Accreditation Council of Graduate Medical Education (ACGME) added “psychological, emotional, and physical wellbeing [as] critical in the development of physicians” to the Common Program Requirements for residency training in July 2017.⁵ While aiming to improve resident well-being, the ACGME also added physician well-being to their “Clinical Learning Environment Pathways to Excellence” noting how well-being among supervising physicians ultimately impacts the clinical learning environment and patient care outcomes.⁵ Prior studies have assessed levels of job satisfaction, happiness, and burnout among academic physicians in positions of leadership in several medical specialties. These published reports suggest a correlation between low levels of job satisfaction and happiness, moderate to high levels of burnout symptoms, and diminished leadership capacity among academic physicians in leadership roles.⁶ In their 2011 publication in *Anesthesiology*, De Oliveira et al report that more than half of all surveyed academic chairpersons of anesthesiology met the criteria for high or moderate burnout, and that low job satisfaction represented a statistically significant risk factor for burnout among this group.⁶

Given the negative consequences of educator burnout, investigating the sources of burnout and wellness promotion strategies may improve residency training environments. To provide informative data, the Association of University Professors of Ophthalmology Working Group on Wellness (AUPO WOW) conducted a survey of ophthalmology PDs and APDs. The purpose of this survey was to (1) determine the prevalence of burnout within the ophthalmology educator population; and (2) guide the development of well-being initiatives for ophthalmology educators based on input from ophthalmology educators themselves.

Methods

The methodology for this study was adapted from a publication by De Oliveira et al.⁶ Our study received an Institutional Review Board exemption from the University of Texas Medical Branch - Galveston. Our survey questions addressed demographic information, domains of the MBI, intent to leave, and wellness promotion. Specific demographic infor-

mation collected can be reviewed in ► **Table 1**. Arithmetic mean analysis was used to analyze responses from the first part of the survey addressing demographics.

Table 1 Characteristics of ophthalmology PDs and APDs

Position (n)	
PD	53
APD	15
Years in position (n)	
0 to 5	37
6 to 10	24
11 to 15	4
16 to 20	2
> 20	1
Gender (n)	
Female	42
Male	25
Prefer not	1
Race/Ethnicity (n)	
Black	1
White	40
Asian	18
Hispanic or Latino	2
Multiracial	2
Other	5
Prefer not	3
Subspecialty (n)	
Comprehensive	27
Anterior segment	10
Cornea	11
Refractive	3
Pediatric	12
Glaucoma	8
Uveitis	5
Retina	6
Neuro-ophthalmology	5
Oculoplastics	5
Age (y; n)	
20–30	1
31–40	22
41–50	31
51–60	10
61–70	4
# Residents in program	
1 to 3	11
4 to 6	32
7 or more	25

Abbreviations: APD, associate program director; PD, program director.

Maslach Burnout Inventory-Human Services Survey

8. Please select best answer regarding the frequency of the questions below:

	Never	A few times a year	Once a month	A few times a month	Every week	A few times a week	Every day
I deal effectively with the problems of my residents.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel I am positively influencing other people's lives through my work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel exhilarated after working closely with my residents.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have accomplished many worthwhile things in my job.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel emotionally drained from my work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel used up at the end of the workday.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel burnout from my work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel frustrated by my job.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel like I am at the end of my rope.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel I treat some of my residents as if they were impersonal "objects".	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I've become more callous toward people since I took this job.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I worry that this job is hardening me emotionally.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Fig. 1 Modified Maslach Burnout Inventory-Human Services Survey.

The full MBI-Human Services Survey (MBI-HSS) addresses depersonalization (5 questions), emotional exhaustion (9 questions), and personal accomplishment (8 questions) for a total of 22 questions. However, the AUPO WOW survey addressed these domains in a total of 12 questions as seen in **►Fig. 1**. To assess emotional exhaustion, participants were presented with statements such as “I feel emotionally drained from work,” and “I feel frustrated by my job,” for a total of five questions. Participants conveyed their feelings of depersonalization through statements such as “I feel I treat some of my residents as if they were impersonal objects,” and “I’ve become more callous toward people since I took this job,” for a total of three questions. Lastly, personal accomplishment was assessed by statements such as “I feel I am positively influencing other people’s lives through my work,” for a total of four questions.

Although De Oliveira et al used identifiers to analyze each participant’s survey responses cohesively, we chose to ensure participant anonymity. Consequently, whereas De Oliveira et al were able to implement a 0 to 6 scoring system for each response, our study instead utilized a top-box approach for data analysis to capture response trends. Specifically, we batched together qualitatively similar responses to a given question. For example, for each of our emotional exhaustion questions, we combined the following responses: “every week,” “few times a week,” and “every day.”

Lastly, the intent to leave and interest in wellness activities incorporated both Likert scores and free text responses for analysis.

Results

A total of 182 ophthalmology PDs and APDs were surveyed and 68 (37.3%) fully completed the MBI-HSS portion of the survey.

Demographic information is summarized in **►Table 1**. The most common durations as PD or APD among respondents who completed our survey in full were 1 to 2 years (23.6%) and 6 to 7 years (22.1%), and the most common age ranges were 41 to 50 years old (45.6%) and 31 to 40 years old (32.4%). The majority of these respondents had a clinical focus of general/comprehensive ophthalmology (27 respondents, 39.7%) as well as a typical residency program size of 4 to 6 residents per year (32 respondents, 47.1%).

Put simply, the higher a top-box score for a particular burnout subdomain, the greater the degree of burnout risk. Responses to our survey’s 12 MBI-HSS questions revealed top-box scores of 29.4% for emotional exhaustion, 4.3% for depersonalization, and 71.7% for personal achievement.

Our survey’s job satisfaction questions reveal that 38.3% of respondents have never considered leaving their role as PD/APD over the past year, while only 6.7% indicated having frequently considered making such a change. Similarly, when asked to project ahead to the coming year, 38.3% of respondents indicated that they are definitely not thinking about leaving their role as PD/APD, while 13.3% indicated that they definitely are thinking about stepping down. Among respondents who have considered leaving their role as PD/APD, reasons provided via free text included poor administrative support, stress, feeling underappreciated, and to facilitate succession.

When asked about likelihood to participate in wellness activities, 45% of respondents indicated being very likely or likely to take part. Respondents expressed an interest in mentoring sessions (66.6%), webinars on wellness topics (38.3%), and mindfulness sessions (33.3%). Respondents were the least interested in engaging with such well-being activities as social online happy hours (20.0%), online/Zoom cooking lessons with a chef (21.7%), and Facebook support groups (26.7%). All results are represented in **►Fig. 2**. Free text responses revealed a desire “to build community”

	1	2	3	4	5	Responses
Online/zoom cooking lesson with chef	32	8	7	6	7	60
Count	53.3%	13.3%	11.7%	10.0%	11.7%	
Row %						
Facebook PD&APD chat/support group	24	8	12	7	9	60
Count	40.0%	13.3%	20.0%	11.7%	15.0%	
Row %						
Social online happy hours	18	19	11	5	7	60
Count	30.0%	31.7%	18.3%	8.3%	11.7%	
Row %						
Mindfulness sessions (yoga, breathing exercises, etc.)	19	8	13	14	6	60
Count	31.7%	13.3%	21.7%	23.3%	10.0%	
Row %						
Mentoring sessions (small group breakouts with experts)	5	4	11	26	14	60
Count	8.3%	6.7%	18.3%	43.3%	23.3%	
Row %						
Webinars on wellness topics	13	5	19	17	6	60
Count	21.7%	8.3%	31.7%	28.3%	10.0%	
Row %						
Totals						
Total Responses						60

Fig. 2 Wellness group activity rankings from Association of University Professors of Ophthalmology Working Group on Wellness (AUPO WOW) survey.

among fellow PDs and APDs, whether through local meet-ups, gatherings during larger ophthalmology conferences, or phone apps. Overall, there appears to be a desire among PDs and APDs to communicate with one another more frequently and more informally, to derive comfort from shared experiences.

Discussion

To date, there is a lack of published data within the research literature about rates of burnout, well-being, and job satisfaction among academic ophthalmologists. In 2007, Cruz et al evaluated the incidence of burnout among 131 chairs of academic departments of ophthalmology in both the United States and Canada.⁷ With a response rate of 77%, nine department chairs (6.9%) were considered to have burnout based on the MBI-HSS scale, while nine others (6.9%) showed no risk factors for burnout. Overall, the ophthalmology department chairs participating in Cruz et al's study showed high levels of emotional exhaustion and moderate levels of depersonalization and personal accomplishment.⁷

As previously discussed, one's predisposition for burnout increases with greater levels of emotional exhaustion and depersonalization combined with lower levels of personal achievement.⁸ In our study population, emotional exhaustion appears to be the greatest risk factor for burnout onset. Furthermore, the results of our study suggest that low levels of depersonalization and high levels of personal achievement may decrease the likelihood of burnout onset.

Outside of ophthalmology, comparable studies have been conducted among educator populations in family medicine, surgery, radiation oncology, anesthesiology, internal medicine (IM), and pediatrics. Although implicit differences among medical specialties and study designs make data comparison difficult, our study elucidates burnout symptom trends within each burnout subdomain, albeit without analyzing an individual respondent's specific burnout risk factors. As reported by De Oliveira et al, 59% of academic anesthesiology department chairs were at risk for developing burnout syndrome, of whom 28% were classified as high-risk.⁶ Another study looking into anesthesiology residency PDs reported a high/high-moderate risk for burnout in 50% of their study population.⁶ Even with emotional exhaustion (29.4%) as the main contributing subdomain for our study, the risk of developing burnout seems far less likely among ophthalmology educators than anesthesiology educators.

Similarly, comparing our data to the published literature, ophthalmology educators appear less likely than family medicine educators to experience burnout symptoms within the depersonalization subdomain. In a study by Porter et al assessing burnout symptoms among family medicine PDs, 27.3% of family medicine PDs demonstrated symptoms of emotional exhaustion, while 15.8% demonstrated symptoms of depersonalization.⁹ Compared with their family medicine educator cohorts, ophthalmology educators demonstrate a similar level of emotional exhaustion. However, ophthalmology educators also appear to demonstrate lower levels of depersonalization. Within IM, 33% of residency PDs met

criteria for burnout syndrome.⁹ This percentage has remained largely unchanged over time for IM residency PDs, a finding that can be interpreted differently based on one's perspective. On the one hand, such stability may reflect that burnout rates are not worsening. On the other hand, a persistent burnout rate may reflect chronicity and nonresolution of issues surrounding their roles as educators. Also of note is the fact that the 33% burnout rate for IM PDs¹⁰ is better than the general IM physician population (> 50%)¹¹ as well as the general resident population (60.3%), which may indicate a protective effect of the PD position among IM physicians.¹² Based on the data from our study, it appears that ophthalmology PDs also have a lower rate of burnout compared with the general ophthalmologist population.¹³ Additionally, ophthalmology educators report high levels of job satisfaction that are comparable to, or greater than, those reported by educator cohorts from other fields. Our data show that 38.3% of respondents had not considered leaving their position during the previous year, and 38.3% of respondents indicated no intent to leave their role when projecting forward. Similarly, 34% of anesthesiology academic chairs reported high job satisfaction even in the context of increased risk for burnout.⁸ Interestingly, IM PDs have been shown to demonstrate greater intent to leave their professional roles due to burnout and work-home conflict even though their educator roles appeared protective as compared with the general IM population.¹⁰ In a 2016 study by O'Connor et al, 48% of enrolled IM PDs considered resigning during the previous year. In the same study, fewer than 50% of IM educators serving as PDs during academic year 2012 continued to serve as PDs during academic year 2016. This finding led the authors to conclude that high turnover rate is associated with increased burnout.¹⁰

Our data reflect a high degree of interest among ophthalmology PDs and APDs for wellness activities aimed at combating the negative symptoms of burnout. Our respondents showed interest in engaging with support groups, meet-ups, and/or online chat rooms where ophthalmology educators can share their struggles and grievances with one another and derive comfort from shared experiences. In a systematic review by Scheeper et al, studies from 2014 to 2018 show mindfulness-based interventions having positive effects in the "psychological and occupational domains of well-being."¹⁴ Similar to interests among participants in our study, Scheeper et al's review highlighted participant interests in mindfulness interventions and sharing brief experiences with peers. Interestingly, Scheeper et al's review found that online mindfulness-based interventions were less preferred due to the lack of peer support.¹⁴ To evaluate specific interventions to combat burnout, Romani and Ashkar conducted a meta-analysis surveying the benefits of interventions at both the individual and environmental level.¹⁵ Cognitive behavioral techniques were considered most useful in preventing and treating burnout in health care providers, with group methods being more cost-effective and beneficial than individual counseling.¹⁵ Sharing experiences and struggles with colleagues appears to be a common approach for wellness promotion. Ten-minute stretching exercises performed in the workplace have been

shown to reduce exhaustion and anxiety levels, while aerobic exercise has been shown to reduce stress levels and the impacts of depression.¹⁵ More research is needed to observe the long-term impacts of interventions and to determine ideal format(s) and content for wellness activities/sessions.

Our study has limitations. First, we had a relatively low survey response rate compared with similar studies within the published literature. Second, since we chose to ensure respondent anonymity rather than utilize respondent identifiers, we were unable to fully emulate prior studies that analyzed an individual respondent's specific degree of burnout risk. While some prior studies implemented the MBI-HSS scale in such a way that elucidated an individual respondent's symptom severity within each burnout subdomain, our study design did not yield data pertaining to individual respondents. Instead, our study yielded all-respondent cumulative totals for each survey question. As a result, our study design does not enable one to draw correlations among burnout symptoms and demographic data. We also acknowledge that the timing of this survey, completed during the coronavirus disease 2019 pandemic, may have influenced participant responses. It is not possible to control or account for the impact of additional pandemic-specific stressors on the results of the present study, or when making comparisons to prior studies. Additional studies may be performed in future years to confirm the data from the current study or understand the relative impact of the pandemic on this ophthalmology educator population.

Although direct comparisons cannot be made due to differing analytical methods, our data may suggest that ophthalmology educators exhibit a lower prevalence of burnout symptoms compared with educators in other specialties. Of note, ophthalmology PDs and APDs seemingly demonstrate a lower prevalence of depersonalization symptoms coupled with a greater degree of personal accomplishment when compared with cohorts in other specialties. Additional studies implementing similar analysis techniques are needed to further support such conclusions. However, our choice to prioritize anonymity leads us to believe respondents, especially those with the most severe burnout symptoms, would be more forthcoming with their answers and more willing to share distressing experiences without concern for societal or professional repercussions. Alternatively, a feasible argument is PDs or APDs with higher burnout may lack the motivation to complete the survey and are less likely to participate in webinars or other activities. Lastly, our study's job satisfaction data reveal a high degree of satisfaction among ophthalmology PDs and APDs, regardless of the administrative challenges that seem to pose a common barrier to well-being in this role. Further research will likely shed more light on burnout and well-being rates among medical educators in general, and among ophthalmology educators in particular.

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None.

Conflict of Interest

Dr. Misha Syed sits on the Program Directors Council for AUPO.

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