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# COMMENT Burnout among ophthalmologists: a global review, gender impact, and the role of AI in mitigation

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A comprehensive literature review was undertaken, focusing on burnout among ophthalmologists, utilizing peer-reviewed publications sourced from the National Library of Medicine. Garrido-Hermosilla et al. revealed a high burnout rate (66.6%) among ophthalmologists from Spain, Portugal, and 15 Latin American countries, with the majority being from Spain [1]. The syndrome, characterized by high emotional exhaustion, depersonalization, or low personal accomplishment, was particularly prevalent among young ophthalmologists engaged in public service and general ophthalmology. The increasing burnout rates necessitated strategic planning by health center managers to understand the causes and implement improvement measures [1].

Rousta et al. reviewed 91 studies and revealed enduring gender disparities in ophthalmology in high-income countries [2]. Despite nearing gender parity, the field showed bias in mentorship and recruitment, unequal learning opportunities, lower income, and higher burnout rates for female ophthalmologists. They also experienced greater sexual harassment but report similar career satisfaction to their male counterparts. Despite the increase in female ophthalmologists, their representation in leadership roles remained low. Interventions are needed to improve gender equity in the field [2].

A survey of 592 U.S. ophthalmologists revealed a 37.8% selfreported burnout rate, with higher rates among women and those in academic and hospital settings [3]. Burnout severity ranged from mild (65.2%) to severe (5.4%). Factors associated with burnout included low work control, insufficient documentation time, and misalignment with departmental leaders. Their study underscored the need to address these issues to mitigate burnout [3].

A nationwide survey of UK cataract surgeons revealed a 3.45% prevalence of high burnout, with a significant reduction in personal achievement [4]. Factors associated with increased burnout included age over 61, performing over 3000 operations, and having more than two lists per week. Adequate sleep was found to be protective. Interestingly, 17% of respondents would consider giving up surgical duties, indicating a potential underreported problem in the profession [4].

Willis et al. proposed a home-based optical coherence tomography (OCT) monitoring device to alleviate the patient burden and significantly decrease the workload of physicians [5]. This innovation addressed a major stressor - the escalating patient volumes. By minimizing unnecessary in-office visits using this home OCT device, complemented by Al-assisted image analysis, it is anticipated that patient volumes will decrease, while maintaining or potentially enhancing the quality of care provided [5].

Physician burnout, a state of emotional, mental, and physical exhaustion, was increasingly common, with 63% of U.S. physicians experiencing symptoms weekly [6]. Contributing factors include overwhelming workloads and extensive time spent on medical documentation. Generative AI offered potential to assist with medical documentation, potentially reducing physician workload and burnout. Despite some inaccuracies, studies showed that generative AI can construct effective discharge summaries and operative reports and improve the documentation process. This could lead to reduced burnout, particularly among ophthalmologists, who are part of the studies highlighting these benefits [6].

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## **AUTHOR CONTRIBUTIONS**

Yoshiyasu Takefuji completed this research and wrote this article.

## **COMPETING INTERESTS**

The authors declare no competing interests.

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