The impact of the coronavirus disease 2019 pandemic on dermatologist burnout: a survey study

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Abstract

Burnout in dermatology is on the rise, with 36% of U.S. dermatologists experiencing burnout in 2020. The coronavirus disease 2019 (COVID-19) pandemic may exacerbate this problem with healthcare workers reporting increased anxiety, depression, and insomnia. To assess the rate, severity, and causes of burnout before and during the pandemic, a survey was sent to academic dermatologists through the Association of Professors of Dermatology (APD) listserv and compared to a similar survey administered to the same population prior to the pandemic. Burnout rates have increased from 2018, with 53% of participants experiencing burnout once a week or more and 17% experiencing burnout daily during the pandemic. The most common COVID-related burnout factors involve uncertainty about the future, teledermatology, fear of exposing loved ones to COVID-19, and compensation reduction. The challenges posed by the COVID-19 pandemic compound existing burnout within dermatology, warranting consideration by academic institutions.

Keywords: academic dermatologists, burnout, COVID-19, dermatology, teledermatology

Introduction

Burnout among dermatologists is rising rapidly. According to the 2020 Medscape National Physician Burnout and Suicide Report, 36% of dermatologists in the U.S. experience burnout [1]. Although dermatologist burnout rates are lower than the overall average for physicians (44%), the specialty has faced a disproportionate escalation in burnout compared to other fields over the past decade, from 32% in 2011 to 45% in 2017 [2]. These burnout rates were obtained from annual Medscape reports and are based on data obtained prior to the COVID-19 pandemic. Physician burnout is likely to increase even further as a result of the pandemic, which has caused anxiety, depression, and insomnia amongst healthcare workers [3]. This study aims to compare the rate and causes of burnout among academic dermatologists before and during the COVID-19 pandemic.

Methods

An anonymous REDCap survey approved by the Human Research Subjects Committee with consent exemption was sent through the Association of Professors of Dermatology (APD) listserv. The survey asked questions assessing prevalence, severity, and causes of burnout during the COVID-19 pandemic. Results were compared to those from a similar burnout survey administered to dermatologists in 2018 [4].

Results

The survey response rate was approximately 19%, with 104 dermatologists participating in the survey from a total of 560 contacted. The pre-COVID study had a 18% response rate [4]. The majority of participants (53%) reported experiencing burnout

once a week or more and 17% reported experiencing burnout daily. These numbers represent a 17% and 7% rise in burnout respectively from the pre-COVID study cohort [4]. Of dermatologists surveyed, 85% believed the COVID-19 pandemic has contributed to their burnout. The most commonly reported COVID-related factors contributing to burnout included uncertainty about the future (60%), addition of teledermatology duties (48%), fear of exposing loved ones to COVID-19 (44%) and reduction in compensation (44%), (**Figure 1**). Additionally, female physicians were more likely than males to cite finding childcare as a factor for burnout (41% versus 8%).

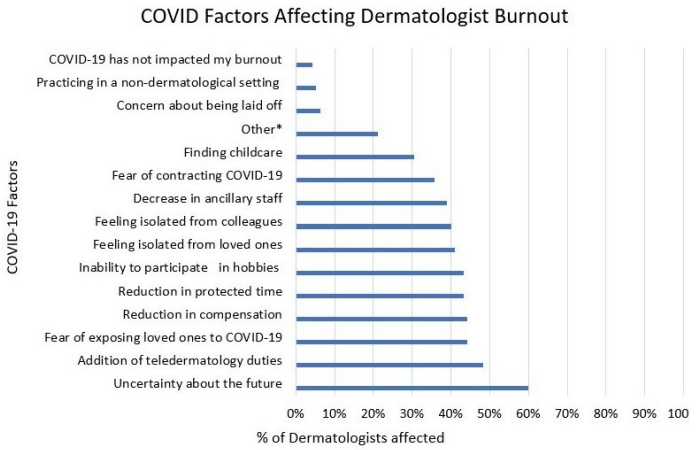

Figure 1. *COVID-19 factors affecting dermatologist burnout.*

Table 1. *Demographics of academic dermatologists.*

Demographic characteristics	COVID-19 group (n=104)	Pre-COVID-19 group (n=91)
No. (%) with data	104 (100)	91 (100)
Gender		
Male	40 (38.5)	63 (40)
Female	64 (61.5)	93 (60)
Age		
18-29	0 (0)	25 (16)
30-39	33 (32)	65 (42)
40-49	39 (37)	30 (19)
50-59	17 (16)	18 (11)
60-69	11 (11)	12 (8)
70+	4 (4)	6 (4)
Practice Type[a]		
Academics	101 (97)	89 (98)
Private	7 (7)	3 (3)
Veterans Affairs	6 (6)	14 (15)
Region		
Northeast	21 (20)	33 (21)
Midwest	29 (28)	46 (30)
South	36 (35)	50 (32)
West	18 (17)	26 (17)
Setting		
Urban	61 (59)	101 (65)
Suburban	40 (38)	46 (29)
Rural	3 (3)	9 (6)

[a]Survey participants could choose multiple practice types.

Discussion

As this study is limited to academic dermatologists, the results may not represent burnout amongst private practice dermatologists. Other limitations of this study include a small, non-randomized sample and a 19% response rate, which lend to possible selection and nonresponse bias. However, the participants represent a wide range of ages, regional locations, and administrative roles (**Table 1**).

Sasangohar et al. reported that intensive care unit physicians in Houston experienced burnout during the COVID-19 pandemic attributable to the psychological burden of the risk of contracting the virus, complex policy changes, and provider financial instability [5]. Our survey participants reported similar causative factors of burnout, but teledermatology duties and lack of protected time for academic pursuits were unique issues for academic dermatologists. Furthermore, finding childcare was a specific burnout factor for female dermatologists.

Conclusion

The COVID-19 pandemic represents an unexpected new source of burnout for academic dermatologists who have already felt encumbered by electronic medical record regulations and productivity pressures [4].

Potential conflicts of interest

Steven R Feldman MD PhD has research grants from Lilly, Abbvie, Janssen, Pfizer, Almirall, and Galderma. He has speaking honoraria from Lilly, Abbvie, Janssen, Alvotech, Amgen and Sun. He receives consulting fees from Abbvie, Janssen, Alvotech, vTv,

BMS, Samsung, Pfizer, Boehringer, Dermavant, Arcutis, Novartis, UCB, Helsinn, Sun, Almirall, Leo, Mylan, Forte, TwoXar, and Arena. He has stock and ownership of www.DrScore.com and Causa Research. The remaining authors have no conflicts of interest to disclose.

References

1. Kane LM. Medscape National Physician Burnout & Suicide Report 2020: The Generational Divide. WebMD LLC. 2020. https://www.medscape.com/slideshow/2020-lifestyle-burnout-6012460. Accessed on October 1, 2020.
2. Shanafelt TD, West CP, Sinsky C, et al. Changes in Burnout and Satisfaction With Work-Life Integration in Physicians and the General US Working Population Between 2011 and 2017. *Mayo Clin Proc.* 2019;94:1681-1694. [PMID: 30803733].
3. Pappa S, Ntella V, Giannakas T, et al. Prevalence of depression, anxiety, and insomnia among healthcare workers during the COVID-19 pandemic: A systematic review and meta-analysis. *Brain Behav Immun.* 2020;88:901-907. [PMID: 32437915].
4. Dorrell DN, Feldman SR, Huang WW. The most common causes of burnout among US academic dermatologists based on a survey study. *J Am Acad Dermatol.* 2019;81:269-270. [PMID: 30682395].
5. Sasangohar F, Jones SL, Masud FN, Vahidy FS, Kash BA. Provider Burnout and Fatigue During the COVID-19 Pandemic: Lessons Learned From a High-Volume Intensive Care Unit. *Anesth Analg.* 2020;131:106-111. [PMID: 32282389].