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## Dermatology Online Journal

### Title

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### Permalink

<https://escholarship.org/uc/item/92c9v9dj>

### Journal

Dermatology Online Journal, 27(3)

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### Publication Date

2021

### DOI

10.5070/D3273052783

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Peer reviewed

# How the COVID-19 pandemic is affecting graduating dermatology residents and fellows

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*Keywords: COVID-19, resident education, fellow education*

To the Editor:

Dermatology training programs across the nation have made various adjustments to resident and fellow training and education in the setting of the coronavirus disease 2019 (COVID-19) pandemic. Prior to the pandemic, dermatologists had the fastest growing rate of burnout [1]. The pandemic has placed tremendous strain on the healthcare system. Currently graduating dermatology residents demonstrate compelling levels of anxiety [2] and a recent survey of United States dermatology residents unveiled their decreased overall wellness [3]. We highlight a number of factors affecting graduating dermatology residents and fellows that may contribute to burnout including changes in clinical training and research, delay in the certification examination and job uncertainty, and child- and family-care disparities which disproportionately affect women trainees.

## **Clinical training and research**

As most dermatology visits and procedures are elective, in-person visits dropped significantly during the initial phase of the pandemic. This impacted training, affecting general dermatology visits, surgical procedures, and dermatopathology cases. Concerns abounded that procedural and clinical skills could be lost, particularly for trainees in their last year. Conversely, residents and institutions became more proficient in telemedicine and virtual didactics were utilized to increase learning opportunities, particularly through program exchanges [4].

Although clinics have resumed in-person practice, this creates new uncertainties for trainees regarding exposure risk, particularly for head and neck procedures during which patients may not be able to wear masks [5]. Many institutions and practices are requiring patients to obtain COVID-19 testing prior to procedures on the head and neck. Although this is useful, a negative test does not ensure the patient does not have the virus and it is possible for the patient to become exposed after the test is performed. Additionally, patients coming in for minor procedures such as cryotherapy, biopsies of the head and neck, or full skin examinations (involving the face and oral mucosa) are not required to have negative COVID-19 testing prior to examination. Trainees may be eager to make up for lost clinical and procedural opportunities but personal protective equipment (PPE) availability and reduced social distancing space in clinics may add additional stress to educational experiences [5].

Trainees who covered COVID-19 shifts were disproportionately impacted, forgoing dermatology training to learn inpatient medicine and work extra shifts with the added stressors of PPE concerns and self-isolation precautions. Variable dermatology resident preparedness for deployment not only contributed to resident uneasiness but may also suggest future focuses in dermatology residency training [6].

With non-essential research halted during the early phase of the pandemic and institutional review board reviews delayed at many institutions, trainees entering academia, engaging in clinical research, beginning post-doctoral programs, or planning to

perform research during fellowships were likely affected. Such changes could impact study recruitment and enrollment as well as delay grant and funding applications. Furthermore, initial cancellations or postponements of academic conferences impeded anticipated information dissemination and colleague collaboration [7]. Even as conferences have now shifted to virtual platforms, which have accessibility advantages, the social component to live conferences cannot be replicated virtually, limiting networking and one-on-one time trainees may have had with potential employers, research partners, and programs [8].

### **Certification and job uncertainty**

Initial uncertainty regarding the timing and location of the certification examination contributed to graduating resident anxiety [2]. Although the examinations were changed from an in-person to an online format, graduates may still be facing the effects of unforeseen study and work schedule alterations.

The employment search is more difficult for trainees who have not secured positions, and for those who had positions secured that may be brought into question during hiring freezes. Although virtual interviews may provide increased access to employment opportunities, graduating residents and fellows face multiple challenges associated with not assessing a program or practice in person. The transition to fellowship or practice is also fraught with concerns regarding logistics of moving, differences in hospital response to COVID-19 testing, sanitation and quarantine protocols, employment gaps, and potential lapses in health insurance.

### **The gender gap**

The pandemic has exposed many professional inequalities. One population disproportionately

affected is graduating female trainees with children. Although the majority of junior dermatology faculty are women, few are full professors and fewer are chairpersons [9]. The competing demands of work and life balance is a factor contributing to underrepresentation of women in leadership tracks [9]. The removal of childcare resources and disproportionate burden of childcare on women during the pandemic only widened the gap that already exists in academia. There are already reports that journal submissions from women have declined during the pandemic, whereas men's submissions have increased [10]. Other studies have found that women's posting rate on preprint servers has dropped during the pandemic [11]. This will most likely continue with the evolution of the pandemic, as female physician-researchers are more likely than male counterparts to take time off from professional duties during disruptions of childcare arrangements [12]. This could have consequences for diversity in academic leadership, as productivity and publications are important factors considered in new academic hires and promotions.

During this continued time of uncertainty, we hope that recognition of factors affecting graduating trainees will prompt program directors and chairpersons to engage in dialogue with the goal of implementing policies to support future dermatologists, minimize resident burnout, and contribute to residents' future successes as researchers, teachers, and clinicians.

### **Potential conflicts of interest**

The authors declare no conflicts of interest.

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