

Impact of the COVID-19 pandemic on dermatology residency education in the United States: A cross-sectional survey



To the Editor: The COVID-19 pandemic has resulted in unprecedented disruptions to dermatology residency education.^{1,2} Following the novel disruptions of COVID-19 on medical training, it is imperative to support residents. However, there has been limited research evaluating the impact of the COVID-19 pandemic on US dermatology training as perceived by dermatology residents.³ This survey analyzes the impact of the COVID-19 pandemic on dermatology trainees. With new SARS-CoV-2 variants arising and the possibility of future public health crises, these reflections are of particular importance.

An institutional review board-exempted web-based survey was distributed to dermatology residency programs nationwide. Likert scale and free-response questions focused on the impact of the COVID-19 pandemic on residency education from March to June 2020. Interviews with dermatology providers and residents allowed for the identification of relevant questions. A statistician reviewed the survey's content and face validity. The survey was available from July 14, 2020, to August 3, 2020. Study data were collected and managed via Lifespan's REDCap electronic data capture tools.

A total of 85 residents completed all Likert scale survey questions. Respondents included residents from a variety of demographics (Table 1).

Of the core dermatology competencies, residents felt that their procedural dermatology education was most negatively impacted, with greater than 80% of respondents noting a negative impact on dermatological procedures (82%), surgical dermatology (81%), and cosmetic dermatology (82%). Residents also reported an adverse effect on general and pediatric dermatology training, with 65% and 55% of respondents noting a negative impact on these areas, respectively. Dermatopathology stood out as the discipline least negatively impacted, with 30% of residents even noting a positive impact (Fig 1).

This is likely due to more recent technological advances, such as virtual pathology tools that support remote teaching.¹ Educational activities that involve live patient participation, including grand rounds and

Table 1. Demographics of surveyed residents (time evaluated: March to June 2020)

Variable	n (%)
Age, y	
20-24	1 (1.2)
25-29	26 (30.6)
30-34	50 (58.8)
35-39	5 (5.9)
40-44	3 (3.5)
Sex	
Male	17 (20.0)
Female	68 (80.0)
Race	
American Indian or Alaska Native	1 (1.2)
Asian	23 (27.1)
Black or African American	12 (14.1)
Native Hawaiian or Pacific Islander	0 (0.0)
White	49 (57.6)
Ethnicity	
Hispanic	4 (4.7)
Non-Hispanic	81 (95.3)
Marital status	
Single	35 (41.2)
Married or cohabiting	49 (57.7)
Divorced, widowed, or separated	1 (1.2)
Children	
Yes	18 (21.2)
No	67 (78.8)
Year of training	
First year	40 (47.1)
Second year	29 (34.1)
Third year	16 (18.8)
Practice setting	
Academic	74 (87.1)
Private practice	11 (12.9)

live patient interactions, were viewed as negatively impacted by 63% and 89% of dermatology residents, respectively. However, half of the residents (50%) reported a positive impact on didactics, underscoring changes to curricula that programs may wish to continue employing. In free-form responses, several residents noted increased educational availability and opportunity, such as virtual conferences, didactics, virtual pathology, collaborative teaching from other programs, and online lectures. These changes likely allowed for increased exposure to guest lecturers and may have contributed to a sense of community during a time of isolation.

Importantly, almost half of the residents surveyed noted an interest in supplemental dermatological training. As such, residency programs may wish to consider additional surgical and procedural

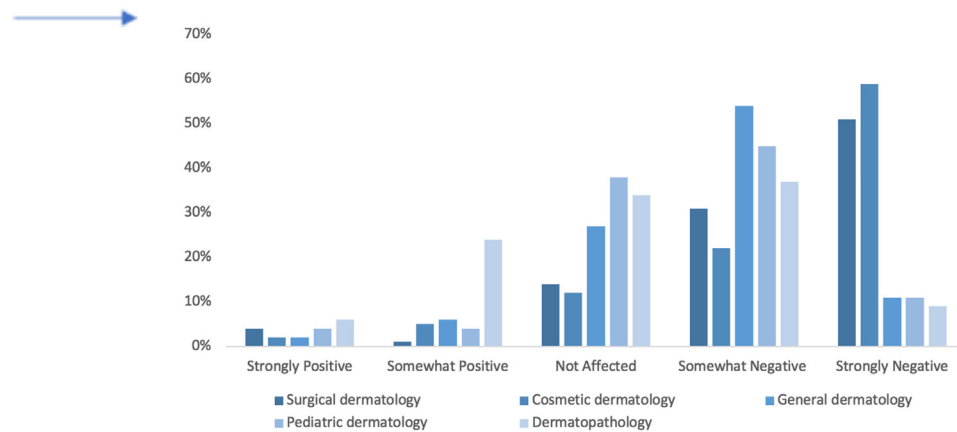


Fig 1. Perceived impact of COVID-19 on dermatology training. Dermatology residents were asked to indicate how the pandemic impacted their education in the core dermatology competencies during the period of March to June 2020.

training sessions should future health crises cause training interruptions. Residents also noted lost opportunities for peer-to-peer teaching as a negative impact of COVID-19 in free-form responses, suggesting more small group sessions that could safely facilitate peer-to-peer learning may be of import.

These data build upon findings of prior studies and mirror findings seen in other cohorts.^{3,4} We hope that by furthering the knowledge of the pandemic's effects on resident education, we can effectively manage its outcomes and build upon its successes.

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Conflicts of interest

None disclosed.

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