

CLINICAL COMMENTARY

The impact of COVID-19 on North American dermatology practices

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Abstract

COVID-19 continues to affect the delivery of healthcare services, as practices across North America gradually re-open with new safety measures and practice guidelines. Specifically in dermatology, clinical care is delivered in close physician-patient proximity through physical examination and the use of additional diagnostic and therapeutic procedures. We designed a 10-question survey to better understand how COVID-19 has impacted the delivery of care in North American dermatology practices. Survey questions explored themes including changes in patient volumes, the use of virtual visits/tele dermatology, the frequency of aesthetic and surgical procedures, and other related topics. We invited 102 board-certified dermatologists working in a variety of medical, aesthetic, surgical, and mixed practices, to participate in our survey hosted through Qualtrics XM. These dermatologists were selected based on their geographic location and our ability to access their contact information. Each dermatologist received an individualized e-mail and survey link; however, all survey responses were anonymized. In 2.5 weeks after survey invitations were sent, the survey was viewed and completed by 71 and 54 dermatologists, respectively. The second wave of e-mails was sent to the remaining 48 dermatologists who had not yet completed the survey, after which 15 participants both viewed and completed the survey. In total, 69 responses were recorded with an overall response rate of 67.6%. We report decreased patient volume capacity, fewer aesthetic and surgical procedures, and an increase in the use of virtual medicine among board-certified North American dermatologists. However, this represents a reflection on perspectives at a single time point in a rapidly evolving situation. Understanding the full scope of the impact that COVID-19 continues to have on dermatologic care is paramount to effectively serve our patients.

KEYWORDS

aesthetic dermatology, cosmetic dermatology, COVID-19, dermatology, medical dermatology, procedural dermatology, return to practice

1 | INTRODUCTION

The COVID-19 pandemic has significantly impacted healthcare services, in particular dermatology where patient-physician interactions occur in close proximity. Our aim was to explore the impact of COVID-19 on North American dermatology practices.

2 | METHODS

We designed a 13-question quantitative and qualitative anonymized survey hosted through Qualtrics XM. Respondents were selected based on board certification as a dermatologist in Canada and/or the United States and membership with the American Academy

of Dermatology and/or the American Society for Dermatologic Surgery, along with the requirement of readily accessible contact information. An effort was made to invite respondents with representative and diverse practice compositions (medical, aesthetic, and surgical dermatology, and/or a combination) and geographic distribution. In December 2020, a representative sample of 102 board-certified dermatologists was invited to participate through a personalized survey link sent via e-mail. Respondents who did not complete the survey within 2 weeks were sent a similar follow-up e-mail in January 2021.

3 | RESULTS

A total of 69 surveys were completed for a final response rate of 67.6% (Figure 1). 1 respondent did not answer the question regarding practice revenue; otherwise, all questions were answered. Respondents described their practice breakdown as primarily medical ($n = 6$, 8.7%), surgical ($n = 6$, 8.7%), aesthetic ($n = 20$, 29.0%), or mixed ($n = 37$, 53.6%).

50 respondents (72.5%) reported decreased patient volume capacity compared with pre-pandemic norms (Figure 2). Only 5 respondents (7.2%) were incorporating virtual medicine in their practice prior to the pandemic; however, 44 respondents (63.8%) have since done so (total 49, 71.0%). Nearly all respondents using virtual medicine do so for 25% or less of their patients (47/49, 96.0%) (Table S1).

55% (33/60) of respondents who perform aesthetic procedures reported performing fewer compared with pre-pandemic norms; however, 15 (25%) and 12 (20%) respondents reported no change or performing more, respectively. 42.6% (26/61) of respondents who

perform surgical procedures (including biopsies) reported performing fewer compared with pre-pandemic norms, while 28 (45.9%) and 7 (11.5%) respondents reported no change or performing more, respectively (Table S2).

On a 7-point symmetric Likert scale (significant decrease to significant increase), 57 respondents (82.6%) reported a decrease in patients' willingness to attend in-person visits. 34 respondents (49.3%) reported having more time available for each patient. 69.1% (47/68) of respondents reported a decrease in practice revenue. 42.0% (29/69) of respondents reported no change in the number of employees working in their respective practices, while 40.6% (28/69) reported a decrease (Table S3).

4 | DISCUSSION

The results of this survey illustrate the profound impact of COVID-19 on North American dermatology practices. Our survey response rate of 67.6% is consistent with a strong survey response.¹

We report decreased patient volume capacity, which can impact several co-dependent factors examined in this survey, including the number of procedures performed and practice revenue. This may also impact patient wait times, scope of practice, and scheduling considerations including time available for follow-up visits versus new consultations.

Our survey results support the notion that virtual visits are a useful adjunct to dermatologic care, particularly for respecting physical distancing guidelines during the pandemic. However, this does not appear to replace all dermatologic care given that less than 25% of visits are currently being performed virtually. Likert scales have been well established and validated for use in surveys.² Despite a

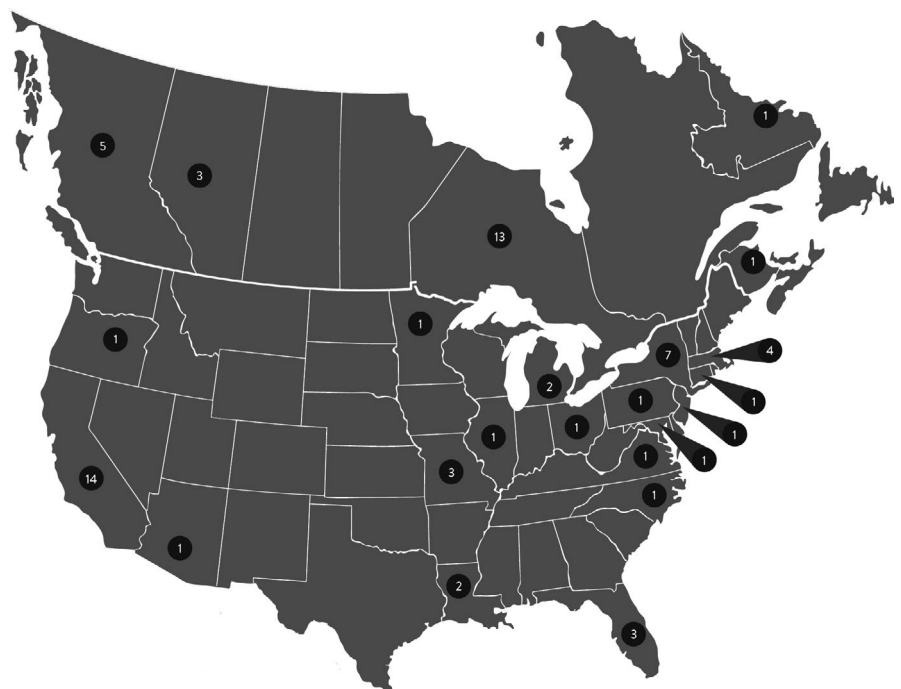
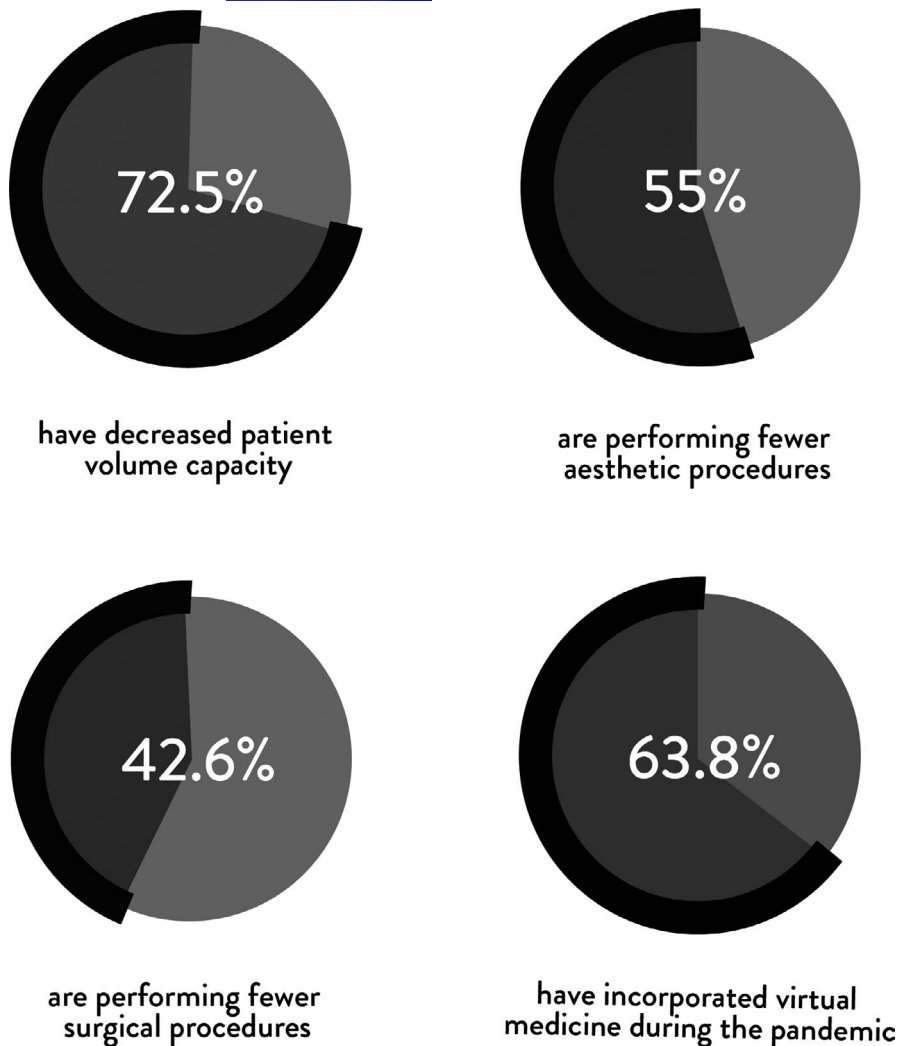


FIGURE 1 Geographic distribution of respondents

FIGURE 2 Summary of key survey responses



perceived decrease in patient volume capacity and patient willingness to attend in-person visits, there was not a proportional increase in the time dermatologists have available for each patient. Pandemic additions to clinical care include symptom screening, temperature checks, physical distancing, and cleaning protocols which impact clinical efficiency.³

Most respondents in our study report a decrease in aesthetic procedures. This is in contrast with popular media reports of the opposite. Sampling and/or recall bias may explain this discrepancy. Patient motivations to pursue aesthetic procedures in the pandemic may include self-care, the desire to do something positive, and increased time seeing one's own image on videoconferencing software.^{4,5} Some patients may be less willing to come to clinic for procedures given pandemic concerns, while others may feel that mask wearing creates an ideal opportunity to recover. These and other location-, practice-, and practitioner-specific factors may explain variations in the impact of COVID-19 on specific practices. If dermatologists are truly observing a decrease in aesthetic procedures, it is possible that other physicians and/or non-physician providers may be fueling the increase in aesthetic procedures reported through popular media.

5 | CONCLUSION

This survey represents a reflection on perspectives at a single time point approximately 9 months after the start of the COVID-19 pandemic, which is rapidly evolving. Limitations of this survey include its restriction to only a small sample of board-certified dermatologists in North America. Dermatologists continue to face limitations in patient volume capacity and the number of procedures that can be performed, with virtual care providing a safe adjunct rather than a replacement for in-person visits. It will be important to continue to explore the evolving impact of the COVID-19 pandemic on dermatologic care as it impacts our patients, our practices, and public health.

AUTHOR CONTRIBUTIONS

The following statements apply to all listed authors: Have made substantial contributions to conception and design, or acquisition of data, or analysis and interpretation of data; Been involved in drafting the manuscript or revising it critically for important intellectual content; Given final approval of the version to be published. Each author should have participated sufficiently in

the work to take public responsibility for appropriate portions of the content; and Agreed to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

ETHICAL APPROVAL

Authors declare human ethics approval was not needed for this study.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available in the supplementary material of this article.

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SUPPORTING INFORMATION

Additional supporting information may be found in the online version of the article at the publisher's website.

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