



Impact of the COVID-19 Pandemic on the Delivery of Dermatological Care

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Abstract

Purpose of Review We review several important changes affecting dermatology during the COVID-19 pandemic, beginning in March 2020. Specifically, we focus on the impact of the COVID-19 pandemic on physician trends in employment, delivery of care via teledermatology, and burnout, resilience, and wellness.

Recent Findings More physicians are now employed by corporate entities than prior to the pandemic. Teledermatology can be utilized effectively and integrated into current care models; however, the continued use of teledermatology will largely depend on financial compensation. The COVID-19 pandemic was a source of burnout for all physicians, including dermatologists, and impacted how many people view their work.

Summary The COVID-19 pandemic pushed physicians to change their employment, required them to implement telehealth rapidly, and forced them to re-evaluate their priorities. Prior to the pandemic, more physicians transitioned into employed positions as compared to physician-owned practices. Multiple reasons for consolidation exist, but the trend accelerated during the COVID-19 pandemic for all medical specialties. Similarly, teledermatology was utilized prior to the pandemic, but its use exploded in the early days of the COVID-19 pandemic and continues to this day. The future of teledermatology though depends primarily on insurance reimbursement for these visits as well as both patient and physician preferences for continued usage. Lastly, wellness became a major focus in medicine as the pandemic took a significant toll on physicians, including dermatologists.

Keywords COVID-19 · Private practice · Workforce · Health workforce · Professional practice · Employment · Teledermatology · Telehealth · Telemedicine · Delivery of healthcare · Burnout · Stress · Wellness · Resilience

Introduction

The practice of dermatology has been incredibly dynamic over the past few decades, but nothing prepared us for what the COVID-19 pandemic would bring. As we rushed to implement telehealth, improvised on how to care for the patients that needed to be seen in person, deployed into

other areas, discovered new associations and therapies, and tried to keep our practices afloat, the pandemic accelerated a number of important existing trends and created new changes. Specifically, increasing physician employment by corporate entities hastened due to financial pressures on practices, new ways of accessing care including consumerism and telehealth were driven by the conversion to remote interactions, and last, magnification of burnout from the stresses of the experience followed by the need for recuperation and rejuvenation affected all of our physicians and all of our staff, including nurses, medical assistants, techs, and administrative help. The fundamentals of our field have probably changed forever—but one thing that the history of dermatologists has shown us is that we are highly adaptable and very resilient.

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Physician Trends in Employment

As in every area in medicine, dermatologists have been increasingly employed over the past two decades, although at lower levels than most other medical specialties [1–3]. However, prior to the pandemic, it was clear that dermatologists were starting to change location and employment at an accelerated rate. A recent article in *JAMA Dermatology* showed that 50% of dermatologists have changed their practice setting over the past 5 years, primarily those early or late in practice [4].

While this movement was fairly new for dermatology, it had been preceded by trends in the rest of medicine. The American Medical Association reported that for the first time, in 2020, less than half of physicians worked in physician-owned practices [5]. Other sources have reported that almost 75% of physicians are now employed by corporate groups (which may be physician owned) [6]. In recent times, the rate of conversion to employment had been steady at about 1–2% a year but accelerated in the pandemic with around a 10% absolute increase in the proportion of physicians employed by hospitals, networks, or corporate entities over the past 2 years.

What is driving these incredible changes and consolidation? The answer is that scope and scale matter. They matter because in order to manage the complicated regulatory, information technology (IT), compliance, and payor environment, MDs of all types have moved into employment to reduce costs and decrease personal financial risk. When groups come together, they have more leverage in negotiating for benefits as well as contracting and gain efficiencies in expenses. Compliance also becomes easier when there is a dedicated trained group to manage it, rather than the default of the MD leader. Large groups can also do more marketing, close networks, and spend capital on IT systems and buildings. Hospitals are, of course, merging quickly as well for all the same reasons.

The move to value-based contracting has also made it harder for practices to remain small. In a small practice, a single patient who has an incredibly expensive event, like a transplant, can completely change how much money that patient has used during the course of the year and then affect how a group would perform in any value-based contracts. This profound risk led to major issues for small practices in the 1990s and can only be avoided if groups are large.

Despite these changes, why would dermatologists be suddenly willing to trade autonomy for employment? Twenty years ago when we documented that dermatologists were in shortage [7], practices had little value. At that time, that realization was severely disappointing for senior physicians who had invested in their practices for years and who anticipated that the sale of their practice

would be valuable in their retirement. Yet because there were minimal barriers to entry and a reasonable expense to start one's own practice, practices themselves had limited value. However, in the past 5 to 10 years, private equity (PE), with its focus on consolidation of practices, began valuing dermatology practices at very high multiples, so it is understandable why people might find the sale of their practice to be an important opportunity for them. Between 2012 and 2018, approximately 381 dermatology clinics were acquired by private equity [8]. While PE remains a relatively small proportion overall for all of medicine, it also is increasing pretty dramatically and has disproportionately affected our field, as well orthopedics, ophthalmology, and a few specialties where the engagement with the hospital on a daily basis can be more minimal. The financial strains of COVID, which were very acute in dermatology [9] on these PE practices, did lead to some performing poorly [10]. The investment in dermatology may now be slowing, but this ownership model in dermatology is likely to be indelible.

Teledermatology in the Pandemic

Telehealth, or teledermatology, evolved significantly during the COVID-19 pandemic with widespread use across our specialty. Attitudes toward teledermatology remain mixed much as it was prior to the pandemic; however, our ability to provide significant dermatologic services via telehealth remains impressive.

Prior to march 2020, teledermatology, or the delivery of dermatology care at a distance, existed in a limited capacity but was primarily asynchronous, employing the “store and forward” technique, where medical information, most commonly clinical photographs, was transmitted to a dermatologist for review at a different time and location [11]. This technique could be used to triage patients, provide input to primary care providers or general practitioners, and provide services to underserved countries or rural areas—primarily addressing issues related to equity for dermatologic care. By providing reimbursement and decreasing regulatory barriers, including significantly altering medical licensing requirements for out of state patients, the pandemic brought about greater usage of synchronous teledermatology where virtual (or video) and telephone visits with live interaction between physician and patient occurred—sometimes with a hybrid method of asynchronously sharing photographs prior to the live visit.

A significant limitation to employment of teledermatology prior to the pandemic was insurance reimbursement. Although asynchronous teledermatology allowed dermatologists to practice telehealth on their own time outside of clinical visits, the time investment required for this practice offered little to no financial incentive for the dermatologist

providing the services. Additionally, utilization of a Health Insurance Portability and Accountability Act (HIPAA) compliant platform and requirements for interstate licensure also posed problems. Thus, the majority of teledermatology services, approximately 50%, was being provided by academic centers [12]. Pre-pandemic Medicare payments for telehealth were originally limited to rural areas and required patients to leave their homes to receive services at a designated medical facility [13]. Although these services were expanded somewhat to include payment for brief communications with healthcare practitioners, such as virtual check-ins, they still required explicit consent from patients to be billed for these services and reimbursed minimally.

On March 17, 2020, the Centers for Medicare and Medicaid Services (CMS) announced an expansion of telehealth and telemedicine, including teledermatology, to allow for parity between in person and telehealth visits that could be conducted in a healthcare facility or a patient's home [11]. Additionally, almost all states modified their licensure requirements for physicians to allow for delivery of telehealth across state lines. This allowed physicians to either easily obtain temporary licenses, often at no cost, or to obtain waivers for licensure to provide care via telehealth. Prior to the pandemic, physicians were required to hold a medical license in the state where services were rendered, which was determined by the physical location of the patient (not physician). These changes, paired with “stay at home” orders to minimize COVID-19 transmission, allowed for a rapid and necessary uptake of synchronous visits with some surveys estimating > 85% of dermatologists utilizing telehealth in 2020 [14]. For practices that utilized teledermatology during the spring of 2020, as many as 99% of their total visits were a mix of synchronous and asynchronous teledermatology visits [15].

Over 500 teledermatology publications from 2020 to 2022 also provided an abundance of information on practical and best case utilization of teledermatology as well as its limitations. Visits most suitable for teledermatology were acne, including isotretinoin-related visits, and dermatitis—conditions that were diagnosed and managed remotely and asynchronously—as well as complex medical dermatology patients, including many on immunosuppressive and immunomodulatory therapy, who benefited from hybrid or synchronous visits [16–19]. Visits for total body skin examinations, specific skin lesions suspected to be malignant or requiring a procedural intervention (i.e., cryotherapy or skin biopsy), and lesions or rashes in difficult to photograph or sensitive areas were difficult to assess remotely and often required follow-up in person visits [20]. Additionally, older patients, non-English speakers, and those with limited access to technology were not ideal candidates for teledermatology visits regardless of chief complaint [17].

The expansion of telehealth during the pandemic also accelerated remote alternative, often-cash-based, options for care that were already being tried, such as subscription prescription products. There are also providers, many of whom are not dermatologists, offering the opportunity to get a virtual visit for cosmetic prescriptions and acne. Whether patients will pay cash in significant numbers for this kind of service remains to be tested—and it has never been a huge part of medical dermatology, but it could chip around the edges of cosmetic practices. Already, some concerns about fraud have been come to pass, and there are expectations that CMS will be carefully monitoring for misuse. Notably since 2021, almost all states rescinded their modified telehealth medical licensing waivers, reverting back to pre-COVID requirements and often costly fee structures for obtaining medical licenses. Thus, dermatologists or physicians who do engage in these virtual platforms, or any telehealth services, are again required to hold medical licenses in all states where services are rendered.

Finally, how patients view and engage in their care has also likely changed dramatically. A dramatically increased number of patients now know how to test for medical conditions at home, do self-monitoring (i.e., O₂ saturation testing), read CDC guidance, and participate more robustly in self-management of their medical conditions with support. Physicians are describing a sometimes overwhelming increase in patient portal questions, and we will need to manage that additional work. But, it is nonetheless positive to see patients more engaged in their care and reaching out with questions or clarifications.

Although dermatologists can use teledermatology to provide care for patients, it remains to be seen how teledermatology will be incorporated into future practice models and will likely largely depend on financial reimbursement, its convenience for dermatologists, and the expectations of patients who have come to rely on virtual interactions to limit travel and time spent on medical appointments. Fortunately, we as a specialty have the experience and access to technology to employ these telehealth services as we see fit in the future.

Burnout, Resilience, and Wellness

Turning to the last topic: burnout, resilience, recuperation, and rejuvenation. There was a pandemic of burnout in dermatology prior to the COVID-19 pandemic [21]. Over the past 2 years, of course, physicians went through an incredible maelstrom of emotional, physical, and environmental impacts that affected them in really different ways, and it was universally hard on everyone.

How should we get past these past few years—to recuperate, rest, and repair?

COVID has heralded a great realignment of how many people view their work. Some are reassessing priorities, some are changing what they do, and others are retiring. It's too early yet to understand the impact on our workforce, but the effects could be substantial. That said, the pipeline continues to be full of eager new trainees; the number of applicants increased 5% between 2020 and 2021 to over 1300 [22]. Our workforce could become younger—and we are also continuing to try to make it more diverse and reflective of the patients we serve.

It's important to go back and find meaning in what to do, how to organize, and how to practice and to make sure that there is fulfillment, happiness, and finding career objectives. The good news is that dermatologists remain a very happy group. While our satisfaction waned during the peak of the IT transformations brought about by Meaningful Use, it has rebounded. In a recent Medscape survey of some 18,000 physicians, 96% of dermatologists would choose the same specialty again, followed only by the orthopedists [23]. It is worth noting that these two specialties are among the most autonomous of any of the groups in medicine. How employment affects satisfaction could substantially affect dermatology—about a quarter of physicians who become employed are interested in returning to self-employment, and physicians in large independent groups are less satisfied than smaller independents [24]. Some have even speculated that one impact of consolidation is a rise in physician unions.

Conclusion

COVID has changed many things, including where we work, who employs us, how we deliver care, and how we respond to adversity. Fortunately, the COVID-19 pandemic has not changed the most fundamental one: dermatology is a great career. It is endlessly interesting, we have amazing colleagues and collegiality, and most importantly, it has meaning and purpose as we make people's lives better.

Declarations

Conflict of Interest Alexa Kimball, MD, MPH, is on the Board of Directors of BILahey Health and Beth Israel Deaconess Medical Center and CEO of Harvard Medical Faculty Physicians. Martina Porter, MD, serves as a member of the American Academy of Dermatology's Patient Safety and Quality Committee. She has no relevant financial declarations.

Human and Animal Rights and Informed Consent This article does not contain any studies with human or animal subjects performed by any of the authors.

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