Teaching Lessons from the Coronavirus Disease 2019 (COVID-19) Pandemic in Telemedicine

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INTRODUCTION

The explosive use of telemedicine during the COVID-19 pandemic has intellectualized important teaching lessons about its role in the landscape of healthcare delivery. Recent publication by Lee et al. articulated the value of telemedicine in managing public health during a state of emergency.[1] Additionally, as telemedicine will likely become irreversibly more prevalent in our healthcare systems, the established cost-effectiveness, efficacy and limitations of the technology remain important to consider in preparation for its expanded role after this time of crisis. Importantly, appropriate preparation also demands increased integration of telemedicine into our residency training programs.

The current literature in telemedicine has significant contributions from the field of dermatology, particularly with the use of store-and-forward or asynchronous technology. Teledermatology delivers healthcare value in the urgent and emergency care setting by reserving the in-person setting for issues of greater concern.[2] Additionally, teledermatology delivers value in the setting of routine care to both patients and society by decreasing required travel time and lost productivity.[2] Studies demonstrate the clinical value of teledermatology at achieving equivalent effectiveness in the outcomes of established patients,[3] contextualizing the Centers for Medicare and Medicaid recent health policy change for telehealth visits in this population. Despite the increased utilization, the practical challenges of virtual care settings remain and include the lack of support staff for care coordinatio and a virtual physical examination, preventing palpation, clear dermatologic visualization, and use of diagnostic tools such as dermoscopy and Wood's lamp.[2] Delivery of high-quality virtual patient care thus likely requires a nuanced set of clinical skills from that of traditional dermatology training.

Indeed, dermatologist utilization of telemedicine has until now been restricted due to medicolegal liability, limited reimbursement of services, as well as insecure infrastructure and poor interfaces of existing platforms.[2] These barriers have also limited hands-on training for teledermatology care models within graduate medical education. A recent survey of 72 dermatology residency programs demonstrated that only 47% of programs were using telemedicine models as part of their residency curriculum. Of those, live video interaction technology was used in only 35% of programs.[4] These findings highlight the knowledge and practice gap needed to increase training within teledermatology. Beyond the current dearth in clinical curricula, one prospective study demonstrated the educational opportunity in teledermatology by evaluating concordance between resident and attending patient care of referred tele-consultations from primary care. Diagnosis concordance between residents and attendings was 47% while management concordance was 35%, underscoring the necessity for practice-based resident education with telemedicine.[5] Given existing data and the context of our current pandemic, integrating innovative healthcare delivery models that use virtual care platforms into the clinical training of our future dermatologists is paramount.

In light of the COVID-19 pandemic, the promise of telemedicine to serve patients in times of crisis, to aid the healthcare system by triaging patient health concerns in a cost-effective manner, to increase access to high-quality care for established patients, to save indirect healthcare costs for the patient and for society, and to modernize our healthcare delivery system with the latest digital innovations begins to materialize. COVID-19 has likely brought about a permanent change to our healthcare system and telemedicine will unlikely return to pre-COVID-19 applications. As such, to improve our preparation for future crises and improve the healthcare delivery system in times more tranquil, the integration of telemedicine training into dermatology residency remains a critical curricular component, shaping an important competency of our future dermatologists.

DISCLOSURE

The authors have no conflicts.

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