

Teledermatology and Skin of Color Patients

Carol Sanchez BS,^a Aderonke Obayomi MD MPH,^a Catherine C. Motosko MD,^a Jonette Keri MD PhD^b

^aDepartment of Dermatology and Cutaneous Surgery, University of Miami Miller School of Medicine, Miami, FL

^bDermatology Service, Miami VA Hospital, Miami, FL

INTRODUCTION

The COVID-19 pandemic popularized telemedicine for many medical systems around the world. Although it came with many advantages for some individuals, it created challenges for other populations, particularly patients with skin of color and minority populations (largely comprised of patients with skin of color). The social determinants of health (SDOH) are defined as individuals' living, working, and learning circumstances that can affect their health and quality of life. These include but are not limited to, job security, housing quality, transportation, healthcare access, and healthcare quality.¹ One crucial social determinant of health for dermatology and minority patients is limited healthcare access, whether from transportation, job restrictions, or lack of insurance coverage. Teledermatology may have reduced some SDOH which negatively impacted patients. However, it also has significant disadvantages such as healthcare quality and other limitations due to internet subscriptions or technology-associated constraints.

Prior to virtual consults, potentially limited access to care for patients was due to transportation or time. Now with the expansion of telehealth, transportation and time are no longer an issue but it adds other limitations come to the forefront. For example, some of the limitations that patients with skin of color face arise from internet access. According to the Miami-Dade Matters website, a website that measures community data, during 2015–2019, 70.7% of households in Miami Gardens (mostly comprised of African Americans) have an Internet subscription.² This value is in the 2nd worst quartile of cities in the United States (US). Brownsville, another city in Miami-Dade County, mainly comprised of African Americans, only had 51% of households with an internet subscription from 2015–2019, putting them at the worst quartile in US cities. In Miami-Dade County, Black/African American individuals had significantly lower internet subscriptions than the overall city. About 70% of Black/African-Americans in Miami-Dade County had an internet subscription compared to an overall percentage of 80% in the county.² Of note, the data from this website is limited to pre-pandemic internet subscriptions and don't reflect the changes that might have been a result of the COVID-19 pandemic.

Other aspects disadvantageous to patients with skin of color that have been studied are patients' perception of care. In one survey study completed in 2012, researchers sought to assess

telemedicine perceptions among African-American and Latino patients.³ Although both groups admitted to several advantages, such as reduced wait times and more access to specialists, African-American respondents were particularly concerned with privacy and the doctor's physical presence. Specifically, the theme of the concern was the lessened interaction with the physician to assess qualification and attention.³ These findings provide insight into how telemedicine alters patient satisfaction in groups that are already disproportionately affected by healthcare. Dermatologists and physicians alike should consider this information when conducting patient visits virtually.

In addition to patient satisfaction, there are limitations to diagnoses through virtual consults. Researchers in a local veterans affairs medical center analyzed the diagnostic concordance between dermatology virtual visits and physical examinations.⁴ In their study, 809 patients of 1286 were advised to follow up in person for an additional investigation of their chief complaint. Of those 809 patients, there was a 75.3% concordance rate between their teledermatology diagnosis and in-person diagnosis. However, 60.2% of those patients had an additional diagnosis, 8.4% had another lesion that was considered to be malignant, and 1.1% had a diagnosis of malignant melanoma after the in-person visit.⁴ Of note, this data represents all patients and was not stratified by racial/ethnic groups. This is incredibly impactful for populations with skin of color who have historically worse morbidity and mortality from skin cancer and who have different clinical presentations in dermatology. It is imperative that future studies investigate the concordance rate between teledermatology and in-person visits for patients with skin of color. To date, there are no studies on the diagnostic accuracy of telemedicine in skin of color patients. Furthermore, the limited image clarity in teledermatology may further exacerbate the diagnostic challenge that dermatologists face diagnosing skin of color patients.⁵

In summary, teledermatology offers an array of positive elements for patients. Nevertheless, providers should recognize that specific populations may not receive the same benefit from this type of visit as others. Therefore, before scheduling visits for patients, providers and staff should be keen on the SDOH that may affect their patients to provide them with the best possible care.

DISCLOSURES

The authors have no financial disclosures to declare.

REFERENCES

1. Center for Disease Control and Prevention. Social determinants of health: Know what affects health. Available at <https://www.cdc.gov/socialdeterminants/about.html>. Accessed 01/04/22.
2. Miami-Dade Matters. Indicators. Available at <https://www.miamidadematters.org/indicators>. Accessed 01/04/22.
3. George S, Hamilton A, Baker RS. How do low-income urban african americans and latinos feel about telemedicine? A diffusion of innovation analysis. *Int J Telemed Appl*. 2012;2012:715194. <https://dx.doi.org/10.1155/2012/715194>. doi: 10.1155/2012/715194.

4. Gerhardt CA, Foels R, Grewe S, Baldwin BT. Assessing the diagnostic accuracy of teledermatology consultations at a local veteran's affairs dermatology clinic. *Cureus*. 2021;13(6):e15406. Published 2021 Jun 2. <https://search.proquest.com/docview/2550633639>. doi: 10.7759/cureus.15406.
5. Lester JC, Taylor SC, Chren M-M. Under-representation of skin of colour in dermatology images: not just an educational issue. *Br J Dermatol*. 2019;180(6):1521-1522. doi:10.1111/bjd.17608

AUTHOR CORRESPONDENCE

Carol Sanchez BS

E-mail:..... csanc159@fiu.edu