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estimates in underrepresented populations and to appropriately identify barriers to care.

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## Understanding the impact of teledermatology on no-show rates and health care accessibility: A retrospective chart review

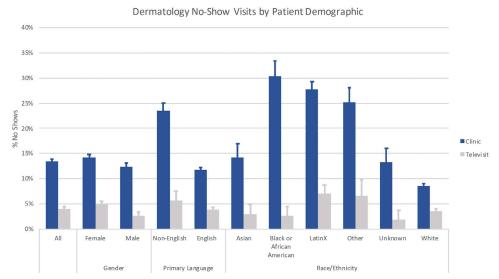


At the onset of the COVID-19 pandemic, emergency legislation expanding the coverage of telehealth service swept across the nation to allow for continued access to medical care despite strict shelter-in-place guidelines.<sup>1</sup> In the wake of this, telehealth usage has increased dramatically.<sup>2</sup> Dermatology, in particular, is uniquely amenable to virtual visits, and teledermatology has the potential to become a permanent platform from which we provide specialty care.

As telehealth expands, additional data are needed on the impact of telehealth on health equity. Missed appointments, or no-shows, are a measure of health disparity, with low-income, Medicaid, and minority patients traditionally having the highest no-show rates.<sup>3</sup> Given the ability of teledermatology to theoretically improve patient convenience and eliminate potential barriers to care, we sought to investigate the impact of telehealth on no-show rates and patient access at a large academic medical center.

The institutional review board of the University of Massachusetts designated this study exempt from institutional review as a quality improvement project. A retrospective chart review was conducted on all patients with completed or no-show appointments with a dermatologist at the UMass Memorial Hahnemann Campus during the months of May and June of 2019 and 2020. Procedural appointments were excluded. In-person visits and televisits, which were conducted using Doximity (San Francisco, CA) or AmWell (Boston, MA) software, were included. Clinic and televisit no-show rates were calculated using data from 2019 and 2020, respectively. Statistical analysis was performed with the Fisher exact test and 2-tailed P values < .05 were considered statistically significant. The Bonferroni method was applied to correct *P* values where indicated.

Compared with clinic visits, televisits had significantly lower no-show rates, with the greatest reductions seen for Black or African American, LatinX, and primary non-English-speaking patients (Fig 1, Table I). Compared with clinic visits, televisits served a greater percentage of Medicaid enrollees and patients under 50 years of age (Table I). There was no significant difference in the racial/ethnic background of patients seen via the 2 platforms, with a similar proportion of minority patients seen in televisits versus clinic visits (504 of 1568 [32.1%] vs 1581 of 5315 [29.7%]; P = .19).



**Fig 1.** No-show rates between clinic and teledermatology visits for all patients and stratified by patient demographic subgroups: gender, primary language, and race/ethnicity. Error bars show the standard error of the mean.

**Table I.** Comparison of patient composition and no-show rates in clinic versus teledermatology visits for all patients and stratified by patient demographic subgroups

Patient demographics	Percent no-show (no-show visits/total visits)		
	Televisits	Clinic visits	P value
All	4.0% (63/1568)	13.4% (711/5315)	<.0001*
Gender			
Female	4.9% (47/969)	14.2% (423/2992)	<.0001*
Male	2.7% (16/599)	12.4% (288/2322)	<.0001*
Primary language			
Non-English	5.6% (8/143)	12.5% (174/742)	<.0001*
English	3.9% (55/1425)	11.8% (538/4573)	<.0001*
Race/Ethnicity			Adjusted P value
Asian	2.9% (2/69)	14.2% (24/169)	.15
Black or African American	2.6% (2/77)	30.4% (68/224)	.0006*
LatinX	7.0% (17/242)	27.7% (229/826)	.0006*
Other	6.6% (4/61)	25.1% (53/211)	.04
Unknown	1.8% (1/55)	13.3% (20/151)	.18
White	3.5% (37/1064)	8.5% (318/3734)	.0006*
Age, y			
<50	4.3% (41/964)	18.7% (423/2268)	<.0001*
≥50	3.6% (22/604)	8.6% (289/3372)	<.0001*
Insurance payer	Completed televisits	Completed clinic visits	Adjusted P value
Private	60.6% (975/1607)	54.5% (2462/4514)	.08
Medicaid	25.5% (410/1607)	19.6% (885/4514)	.0003*
Medicare	13.8% (222/1607)	25.9 % (1167/4514)	.0003*
Total	1607	4514	

<sup>\*</sup>Statistically significant.

The data show a particularly striking reduction in no-show rates for minority patients seen via teledermatology. At the same time, both platforms served a similar population of patients with respect to race/ethnicity, while televisits saw a greater percentage of Medicaid but smaller percentage of Medicare enrollees, possibly reflecting agedependent differences in comfort with virtual visits. Lack of private transportation, access to childcare, and inflexible work schedules contribute to higher

no-show rates in minority patients and patients with Medicaid. 4,5 Significant reductions in no-show rates with teledermatology suggest that televisits may help mitigate barriers to care and improve access for these patients.

Limitations of this study include its small sample size and single institution experience. However, this study provides early evidence that teledermatology may play an important role in mitigating no-show rates and improving access to our most vulnerable populations. Further investigation into the impact of telehealth on health inequity is vital to informing future policy making regarding continued insurance coverage of telemedicine moving forward.

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## **Cross-sectional survey examining** skin picking and hair pulling disorders during the COVID-19 pandemic



To the Editor: Body-focused repetitive behaviors (BFRBs) include repetitive hair pulling (trichotillomania), nail biting, and skin picking (excoriation disorder). The ritualized behaviors are distinct and classified among obsessive-compulsive and related disorders in the Diagnostic and Statistical Manual of Mental Disorders. BFRBs can cause distress, visible damage, and lead to social impairment.

Societal changes from the COVID-19 pandemic present a unique challenge to those with BFRBs. Individuals with BFRBs have high baseline levels of anxiety and report a correlation between anxiety and symptom severity. Rapid implementation of changes to daily life, including COVID-19 social distancing directives, have the potential to compound the increased social isolation already experienced by those with BFRBS.<sup>1</sup>

We created a survey to examine how changes during the COVID-19 pandemic have affected those with BFRBs, including symptom severity and access to treatment.

This study was exempted by the University of Minnesota Institutional Review Board. An online survey link was shared among BFRB Facebook groups and in a newsletter sent to consumers of a BFRB awareness device (HabitAware, Minneapolis, MN). Responses were collected between July 1 and July 31, 2020. Participants who indicated hair-focused BFRBs completed a modified General Massachusetts Hospital Hairpulling Scale and those with skin-focused BFRBs completed a modified Skin Picking Scale-Revised comparing symptoms before and during the