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# Patient perceptions of personal protective equipment use in an outpatient dermatology clinic during the COVID-19 pandemic

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To the Editor:

The coronavirus disease 2019 (COVID-19) pandemic disrupted the use of outpatient clinic visits for routine dermatologic care. Outpatient visits have since resumed at our dermatology clinic with increased personal protective equipment (PPE) use by both physicians and patients. Currently, there is a paucity of data regarding patient perceptions of PPE use during dermatologic care in the COVID-19 era. Our objective was to characterize patients' PPE use and their expectations of dermatologists' PPE use during the COVID-19 pandemic.

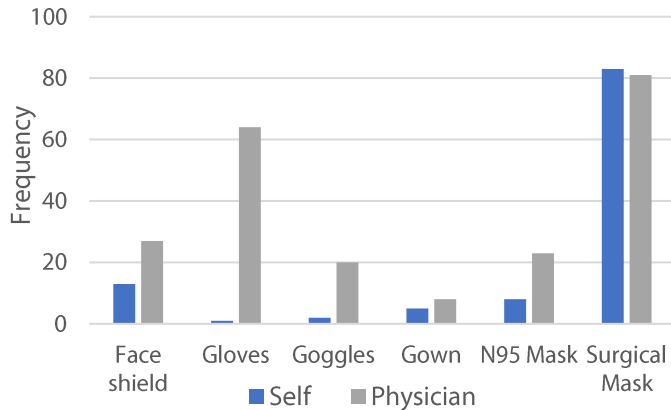
A 14 question REDCap tablet survey was self-administered to adult patients at our academic outpatient dermatology clinic over three weeks in November and December 2020 [1]. Survey items included patient demographics, personal experiences and perceived risk of COVID-19, PPE use by the patient, and preferences of PPE use by the physician; they were modified from prior instruments [2]. Statistical analysis was performed using STATA (version 16.1; StataCorp, College Station, TX) and figures were constructed using Microsoft Excel.

A total of 110 patient subjects self-administered the survey ([Table 1](#)). The majority of patients had not been infected with coronavirus (94.55%); however, over two thirds (68.18%) reported a close contact with either diagnosed or suspected coronavirus ([Table 1](#)).

Regarding COVID-19 risks and perceptions, nearly half of patients reported they felt they would only be mildly symptomatic or asymptomatic if they were to contract coronavirus (46.73%) and approximately a third (36.6%) indicated that they were either not worried or only slightly worried about contracting COVID-19. The majority of patients (81.5%) were not concerned about contracting coronavirus during their dermatology visit and 85% of patients indicated they had not delayed care because of concern for coronavirus ([Table 1](#)).

Patients were asked what PPE they planned to utilize during their visit and what PPE they preferred physicians utilize during their dermatology visit ([Figure 1](#)). Surgical masks were the most common PPE item planned to be used by patients and preferred for physician use (75.45% and 73.64%, respectively). The majority of patients also preferred physicians use gloves (58.18%), whereas only one patient reported planning to use of gloves themselves. A minority of patients reported face shield (11.82%, 24.85%), goggles (1.82%, 18.18%), gown (4.55%, 7.27%), and N95 mask (7.27%, 20.91%) use for both themselves and preferred use by physicians, respectively. Overall, patients preferred greater physician PPE use for all items compared to PPE use for themselves, except for surgical masks. The mean number of PPE items chosen for self and preferred for physician use was 1.055 (95% CI 0.97-1.13) and 2.055 (95% CI 1.86-2.25), respectively.

Personal protective equipment protects physicians and patients from transmission of infectious pathogens [3]. The use, distribution, and availability



**Figure 1.** Patient preferences for personal protective equipment to be worn by self or physician. Each subject was asked to choose what personal protective equipment (PPE) they planned to utilize during their visit and what PPE they preferred physicians utilize. Frequencies represent total number of selections and patients could choose multiple PPE items, if preferred.

of PPE has come under increased scrutiny during the COVID-19 pandemic [4]. Use of PPE by patients may be related to their own perceptions of risk for themselves and for family members [5]. This study suggests that dermatology patients expect a higher degree of PPE use by dermatologists compared to themselves amidst the COVID-19 pandemic. Many

patients are also willing to continue routine dermatology care during the COVID-19 pandemic. It is important that dermatologists are aware of these patient perceptions, especially the expectation of glove use.

Limitations of our study include a selection bias related to in-person survey administration which excluded patients who received their care via electronic visits or patients who had delayed their care. Additionally, as our population was predominantly Caucasian, with a higher female-to-male ratio, these results may not generalize to other patient groups.

In conclusion, our study demonstrates that dermatology patients expected a greater use of PPE by their physician (most commonly surgical mask and gloves) than for themselves (surgical mask) during the COVID-19 pandemic.

## Potential conflicts of interest

The authors declare no conflicts of interest.

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**Table 1.** Sample Demographics and Perceptions of COVID-19.

Characteristic	Patients. No. (%) (N=110) <sup>a</sup>
Age, mean, range	56, (18-84)
<b>Gender</b>	
Female	77 (70)
Male	33 (30)
<b>Race or Ethnicity</b>	
White	88 (80)
Black or African American	9 (8.18)
American Indian or Alaska Native	1 (.91)
Hispanic, Latino, or Spanish Origin	1 (.91)
Chinese	4 (3.64)
Filipino	1 (.91)
Asian Indian	3 (2.73)
Vietnamese	1 (.91)
Other Asian	1 (.91)
Prefer not to answer	1 (.91)
<b>Insurance</b>	
Private	67 (60.91)
Government (Medicare or Medicaid)	38 (34.55)
No insurance or unsure	4 (3.64)
Prefer not to answer	1 (.91)
<b>Do you believe you had coronavirus?</b>	
Yes <sup>b</sup>	6 (5.45)
No	104 (94.55)
<b>Positive diagnostic test?<sup>c</sup></b>	
Yes	3 (50)
No	3 (50)
<b>Hospitalized for Coronavirus symptoms?<sup>c</sup></b>	
Yes	1 (16.67)
No	5 (83.33)
<b>Know a close contact with coronavirus?</b>	
Yes <sup>b</sup>	75 (68.18)
No	35 (31.82)
<b>Close contact who became ill or died from coronavirus?<sup>c</sup></b>	
Yes	15 (20)
No	60 (80)

Characteristic	Patients. No. (%) (N=110) <sup>a</sup>
<b>If you were to contract coronavirus, how symptomatic do you think you would be based on your current level of health?<sup>a</sup></b>	
Asymptomatic	11 (10.28)
Mildly symptomatic	39 (36.45)
Moderately symptomatic	36 (33.64)
Severely symptomatic (life threatening)	16 (14.95)
Prefer not to answer	5 (4.67)
<b>How worried are you about getting the coronavirus?<sup>a</sup></b>	
Not worried at all	14 (12.84)
a little worried	26 (23.85)
Somewhat worried	36 (33.03)
Very worried	28 (25.69)
Extremely worried	5 (4.59)
<b>Have you delayed care because of concern for coronavirus?<sup>a</sup></b>	
Yes	14 (13.08)
No	91 (85.05)
unsure	2 (1.97)
<b>"I am concerned that I will contract coronavirus during my visit"<sup>a</sup></b>	
Strongly disagree	36(33.33)
Disagree	52 (48.15)
Neither agree nor disagree	16 (14.81)
Agree	3 (2.78)
Prefer not to answer	1 (.93)

<sup>a</sup>Total counts for individual characteristics may be less than 110 due to missing survey responses.

<sup>b</sup>Indicates question response that triggers branching follow up questions.

<sup>c</sup>Indicates branching follow up questions and total counts reflect triggering response from base question.