

A Multi-Site Assessment of Patient Experience with Tele dermatology



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SYNOPSIS

- Due to its increasing efficacy and the persistence of COVID-19 variants, telemedicine continues to be an appropriate tool for usage.
- Tele dermatology is telemedicine used in a dermatology setting. Models of tele dermatology can be synchronous (live interactive) or store and forward¹.
- Benefits to tele dermatology include increased access to care, lower costs for patients, increased convenience, and most relevant now decreased physical contact. Disadvantages include lack of access to technology, limited understanding of technology, and inferior communication¹.
- Disparities in healthcare may affect satisfaction with this resource dependent on racial, age, or socioeconomic background.

OBJECTIVES

- The purpose of this study is to examine patient satisfaction with telemedicine for a dermatology appointment and understand any differences that may exist depending on specific patient populations.

METHODS

- Questions were developed based on review of literature and trial tested in both dermatology clinics which used the synchronous (in real time) method of tele dermatology
- Survey was given in the dermatology clinics at Truman Medical Centers in Kansas City, Missouri (Site 1) and the The University of Kansas Health System in Kansas City, Kansas (Site 2) after tele dermatology visit, emailed, or as a paper handout when visiting in-person clinic. Patients used their own device for appointments.
- Patient satisfaction was measured using a five-point Likert scale ranging from highly dissatisfied (score=1) to highly satisfied (score=5). The five Likert groups were condensed into subsets: satisfied group (highly satisfied and satisfied), neutral group, and dissatisfied group (dissatisfied and highly dissatisfied).

RESULTS

- A total of 64 surveys were analyzed. Both sites had similar populations with most participants being in the age 61-75 category, female, and choosing White for race (Table 1a). The average income level chosen for site 2 was above \$100,000 compared to site 1 which was between \$40,00-\$60,000 (Table 1b).
- Overall, 73.4% of patients reported being very satisfied or satisfied with their visit, but only 39% of participants were likely to choose a video over an in-person visit (Table 2). Over eight participants reported concern regarding the ability to do an accurate exam with a video visit in the comments section of the survey.

Table 1a Demographic characteristics of participants

| | Age | | | | | Gender | | Race | | |
|---------------|------------------|------------------|------------------|------------------|---------------|---------------|-----------------|-------------------------------------|------------------|-----------------|
| | 18-29 (10.9%) | 30-45 (20.3%) | 46-60 (26.6%) | 61-75 (34.4%) | 75+ (7.8%) | Male (25%) | Female (75%) | Black or African American (7.8%) | White (85.9%) | Other (4.6%) |
| Site 1 (n=34) | 5 | 5 | 11 | 10 | 3 | 8 | 26 | 5 | 26 | 2 |
| Site 2 (n=30) | 2 | 8 | 6 | 12 | 2 | 8 | 22 | 0 | 29 | 1 |

Table 1b Income level of participants

| | Below \$10,000 (12.5%) | Between \$10,000-\$20,000 (3.1%) | Between \$20,000-\$40,000 (7.8%) | Between \$40,000-\$60,000 (21.9%) | Between \$60,000-\$80,000 (10.9%) | Between \$80,000-\$100,000 (4.6%) | Above \$100,000 (29.7%) |
|--------|---------------------------|-------------------------------------|-------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|----------------------------|
| Site 1 | 6 | 2 | 4 | 8 | 5 | 2 | 5 |
| Site 2 | 2 | 0 | 1 | 6 | 2 | 1 | 14 |

n%= percentage of total participants; n= actual number

Table 2 Factors Associated with Satisfaction of Tele dermatology (Figure 2)

| | Overall satisfaction n | Quality of video visits | Likelihood of choosing video visit over in-person visit | I understood what my provider told me | My provider I had the heard and understood me | I had the opportunity to ask questions | I felt my privacy was respected | My skin condition is or will be well taken care of |
|--------------------------------|------------------------|-------------------------|---|---------------------------------------|---|--|---------------------------------|--|
| Satisfied/Agree /Likely | 73.4% (47) | 78.1% (50) | 38.7% (24) | 95.2% (60) | 92.2% (59) | 95.2% (60) | 92.2% (59) | 76.2% (48) |
| Dissatisfied/Disagree/Unlikely | 9.4% (6) | 3.1% (2) | 46.8% (29) | 0 | 3.1% (2) | 0 | 4.7% (3) | 6.3% (4) |
| Neutral | 17.2% (11) | 18.8% (12) | 12.9% (8) | 4.8% (3) | 4.7% (3) | 4.8% (3) | 3.1% (2) | 17.5% (11) |
| P-value for age difference | 0.273 | 0.286 | 0.801 | 0.786 | 0.773 | 0.332 | 0.417 | 0.377 |
| P-value for income difference | 0.431 | 0.276 | 0.966 | 0.72 | 0.188 | 0.246 | 0.273 | 0.349 |
| P-value for race difference | 0.071 | 0.236 | 0.074 | 0.316 | 0.787 | 0.884 | 0.274 | 0.706 |

RESULTS CONT.

- Of individuals reporting an income level of \$20,000 or less, 75% used a phone for a video visit. In contrast to individuals with an income level over \$100,000 where only 25% reported using a phone and the rest using a tablet, computer, or laptop which is important to consider when choosing a platform or program.
- For analysis of race, participants choosing other or Black/African American were grouped together. For analysis of age, two groups were set with one being age 57 and below. For analysis of income, two groups were set with one being below \$60,000. No statistical difference in patient satisfaction for race, age, or income level was of note but further research with a larger cohort is needed to support this statement.
- Our study agrees with previous data stating no difference in patient satisfaction with regards to age and patients reporting high satisfaction with tele dermatology appointments despite a preference for an in-person visit dermatology². Limitations to the study include small sample size, recall bias, and selection bias due to patients with higher technological abilities being more likely to have tele dermatology appointments and therefore complete the survey.

CONCLUSIONS

- This study found that overall 73% of patients were patient satisfied with tele dermatology, but only 39% would choose them over in-person visits.
- Patient concerns such as privacy, receiving inadequate care, and provider understanding the patient are reasons for low satisfaction with tele dermatology visits.
- Future directions: This was between two sites in geographical proximity which allows for a better understanding of views of satisfaction unbiased by provider or hospital satisfaction. Due to the COVID-19 pandemic, restrictions and regulations on reimbursement procedures and HIPPA compliance with tele dermatology have decreased³. This has led to an increase in tele dermatology usage, but policy changes must continue to correct limitations and ensure efficacy of this resource.

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