

Understanding Digital Access and Digital Health Literacy Among Breast Patients in a Safety Net Hospital

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BACKGROUND

RESULTS

- During the COVID-19 pandemic, face-to-face consultation between doctors and patients proved to be challenging. The utilization of Digital Health dramatically increased and was a cornerstone in providing continued access to healthcare.
- This shift towards telemedicine and the infrastructures that were established persisted even after the pandemic.
- In addition, nowadays, most health literature and information are no longer available on paper. Most information, including ones from American Cancer Society, are more available online.
- The question whether this could lead to a digital divide and further worsen the health disparities have started to arise.
- This descriptive study aimed to identify what percentage of patients seen at a breast clinic of a safety net hospital were able to use technology to access medical records, communicate with doctors virtually, and access online resources to supplement their care.

Characteristics	N	(%)
Age		
18-39	27	27%
40-59	52	51%
60-75	20	20%
>75	2	2%
Race		
Asian	20	20%
Black or African American	18	18%
Hispanic or Latino/a	50	50%
Native American	1	1%
White or Caucasian	8	8%
Pacific Islander	1	1%
Others	3	3%

Figure 1. Demographic Characteristics of the patients

Access to Digital Technologies

- 96% reported they owned a cellphone/smartphone, 33% a tablet, and 32% a laptop.
- 89% reported that they currently have internet access at home.
- Bivariate analysis did not show any statistically significant difference in having home Wi-Fi among different races (p=0.07). However, Black and Hispanic patients were less likely to access the internet at home (p = 0.02), but not at work (p = 0.51) or in public (p = 0.29).

Access to Digital Health Tools

- 53% of the patients had not used telemedicine before
- 15% had used a virtual assistant or a chatbot for health information or advice
- 43% had used a mobile application to track their health information such as symptoms and medications
- Multivariate logistic regression showed the Black and Hispanic race was associated with significantly decreased odds of using telemedicine (Odds ratio 0.16, p <0.001) when controlling for age. However, age was not associated with difference in using telemedicine.

	Very Comfortable	Somewhat Comfortable	Not Very Comfortable	Not At All Comfortable
How comfortable are you using the internet to find health information?	52%	28%	9%	14%
Do you feel comfortable using technology to communicate with your healthcare provider(s)?	40%	36%	17%	8%
	Very Confident	Somewhat Confident	Not Very Confident	Not At All Confident
How confident are you in your ability to use electronic health records?	36%	20%	30%	15%
Do you feel confident in your ability to identify trustworthy health websites?	26%	32%	28%	15%

Figure 2. Summary of patient's response to questions related to attitude towards digital health

Attitude towards Digital Health

- Using Fisher's Exact Test showed that being Black or Hispanic was associated with significantly decreased confidence in telemedicine usage (p=0.01).
- However, there is no significant difference in the confidence levels between Black and Hispanic patients (p=0.73)

METHODOLOGY

- A total of 101 women seen at a safety net hospital in Oakland, California from May 2023 to September 2023 were asked to answer a 14-item survey to assess digital health access and digital health literacy.
- Bivariate and multivariate analysis were performed to analyze associations between demographic characteristics and access/use of digital technologies.

DISCUSSION

- Majority of patients have access to digital technologies (i.e. cellphone and internet). However, having access does not necessarily lead to engagement with digital health tools and continued participation to digital health tools.
- Black and Hispanic patients have lowest telemedicine usage and confidence in its usage.
- Findings suggest that in a safety net hospital, disparities in digital health are not simply related to language.
- Interestingly, age was not associated with decreased use of telemedicine which is consistent with prior studies suggesting that age gap in technology has been closing over recent years.
- Allocating more resources to Digital Health education is fundamental in decreasing health disparities. This can be from a dedicated person to enroll patients in MyChart, and workshops on how to navigate health information on the internet.
- Technology has potential to empower patients and decrease disparities but resources should be invested to level the playing field in the beginning.

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