

Exploring the digital divide in telehealth adoption among pediatric pain patients in a children's hospital

Presenting Author: Phillip A. Quiroz¹

Co-Authors: Eugene Kim MD², Grace Hsu MD³, Jonathan M. Tan, MD MPH MBI FASA^{3,4}

¹ MD/MPH Candidate, Keck School of Medicine at the University of Southern California, Los Angeles, CA

² Chief, Division of Pain Medicine, Department of Anesthesiology Critical Care Medicine, Children's Hospital Los Angeles; Assistant Professor of Anesthesiology, Keck School of Medicine at the University of Southern California, Los Angeles, CA

³ Assistant Professor of Anesthesiology, Department of Anesthesiology Critical Care Medicine, Children's Hospital Los Angeles; Keck School of Medicine at the University of Southern California, Los Angeles, CA

⁴ Assistant Professor of Spatial Sciences, Spatial Sciences Institute, Dornsife School of Arts and Sciences at the University of Southern California, Los Angeles, CA

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Introduction: Telehealth provides an opportunity to deliver health care by reducing physical barriers. Although the adoption of telehealth has increased, the COVID-19 pandemic expedited the expansion and support for telehealth due to a need for social distancing and changes to reimbursement. While telehealth can bridge gaps in care, the rapid adoption of telehealth technology may lead to an increased digital divide, whereby technology can exacerbate existing health disparities. Understanding the impact of telehealth on health disparities is an important component toward achieving health equity. The goal of our study was to describe telehealth utilization among a pediatric pain clinic population and understand if patient demographic factors were associated with differences in telehealth utilization.

Methods: Following IRB approval, we conducted a retrospective study of all pediatric pain clinic patients seen by telehealth at the Children's Hospital Los Angeles from 4/2020 to 5/2021. Patient demographic details and telehealth utilization data were abstracted from electronic health records. The primary outcome was telehealth appointment no-show or cancellation within 24 hours. Statistical analysis was conducted using SAS.

Results: Our study included 550 patients, with 241 (43.8%) patients seen as new patient visits and 309 (56.2%) having their follow-up visits during the study time period. The median age was 15-years old. The most frequent self-reported race was White (24.6%), followed by Black (6.4%), and Asian (2.8%), with reports of Other (51.8%) and Unknown (14.2%). Our cohort self-reported their ethnicity as Hispanic (38.3%), Non-Hispanic (29.3%), with a group of Unknown (32.4%). The most common self-reported language was English (85.8%), followed by Spanish (14.0%). Most patients had government insurance (61.6%) versus commercial (38.4%). For all appointments, 14.9% were cancelled <24 hours/no-show, whereas new appointments had 21.2% of patients cancelled/no-show and follow-up appointments were cancelled/no-show in 10.0% of appointments. Among new patient visits, ethnicity and government insurance status were statistically associated with being cancelled <24 hours from appointment, or no-shows ($p < 0.05$). Among new patient visits, those who identified as "Other" were more than twice as likely to cancel/no-show than those who identify as White.

Discussion: In our study of pediatric pain clinic patients, ethnicity and insurance status were significantly associated with patients who had cancellations and no-shows for telehealth appointments. These factors may represent barriers related to the utilization of telehealth and are opportunities to further study how to reduce the digital divide and work toward health equity. We also found there were a large number of patients who self-identified their race as "Other" or "Unknown." Improving the accurate collection of demographic data remains an important foundation toward identifying and reducing disparities in health and health care.

References

- Curfman A, et al. Pediatric Telehealth in the COVID-19 Pandemic Era and Beyond. *Pediatrics* September 2021.
- Lattimore CM, et al. Disparities in telemedicine utilization among surgical patients during COVID-19. *PLoS ONE* 2021.
- Rodriguez JA, et al. Disparities in Telehealth Use Among California Patients with Limited English Proficiency. *Health Affairs*. 2021.
- Wood SM, et al. Outcomes of a Rapid Adolescent Telehealth Scale-Up During the COVID-19 Pandemic. *J Adolesc Health*. 2020.
- Chang JE, et al. Rapid transition to telehealth and the digital divide: implications for primary care access and equity in a Post-COVID Era. *Milbank Q*. 2021.