Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Paradox of telemedicine: building or neglecting trust and equity

Rigorous efforts to minimise disease transmission in the COVID-19 pandemic have catalysed the development of comprehensive telemedicine systems.[1] Beyond enabling contactless health care, telehealth increases the convenience of routine health care, expands access to specialty care, and allows for more diligent regimen monitoring. These transformational changes will probably endure, with the potential of an estimated US$ 259 billion in health care spending to be shifted to virtual health care.[1] Telehealth offers immense promise in bridging health disparities.[2] Yet, simultaneously, telehealth might exacerbate existing inequities because of disparities in broadband and technology access by race and household income.[2] However, we argue that the promises and pitfalls of telehealth are rooted in something more fundamental—trust.

Analysis of the Mount Sinai de-identified COVID-19 database found that Black patients were more than four times more likely than White Americans to seek health care in the emergency department over telehealth services, even when adjusting for comorbidities and preferred language. This study, as well as other literature, offers the potential explanation that the lack of pre-established relationships with physicians, as well as mistrust of digital platforms, could drive this reluctance to pursue telemedicine.[3,4] Indeed, Black Americans are less likely than White Americans to have strong relationships with their primary care physicians, potentially contributing to scepticism that high-quality care can be provided over telehealth. Weber and colleagues' findings urge consideration regarding how patient-clinician relationships through telemedicine can impact health equity, especially given institutionalised distrust among Black communities.[3]

To be certain, this paucity of trust is nothing new. Transgenerational trauma experienced by Black communities has created the perception—and often reality—that health care entities do not have their best interests at heart.[5] Black Americans have historically adopted novel medical technologies at lower rates than their White counterparts, due in large part to inaccessibility and well founded suspicion towards medical innovation.[6] Although distrust negatively affects telemedical outcomes, the inverse also holds true Orrange and colleagues note that patient satisfaction with telehealth was primarily influenced by the "degree of trust in their physician".[7] As such, a paucity of trust is likely to undermine the potential for telemedicine to mitigate health disparities, underscoring why trust and telemedicine must be developed and bolstered simultaneously. Although all could benefit in the absolute, mistrust among Black Americans around telemedicine, and the medical establishment more broadly, might only exacerbate deep-rooted health disparities.

Patient–clinician relationships are also harmed by the lack of connectedness due to interaction through a digital interface. In fact, Ladin and colleagues found that telehealth visits reduce doctor–patient connection and promote dissatisfaction and mistrust most prominently among those identifying as Black, Hispanic, and Native American.[8] In a discipline like medicine, which is equally humanistic as it is technical, both physical and emotional care are necessary to achieve optimal health outcomes and bolster patient–clinician relationships. These findings highlight the need to prioritise a more empathetic, patient-centred focus in the current deployment of telemedicine.

Leveraging telemedicine to increase the access of concordant physician–patient pairings could help to achieve greater trust in remote platforms. Telehealth suppliers should consider offering the option for patients to arrange appointments with concordant physicians. These pairings can be enabled through the integration of extensive physician databases, such as IQVIA's OneKey, into telehealth platforms such that minority patients can find medical professionals with greater ease. It is well documented that minority patients prefer care from racially and ethnically concordant doctors, and that these pairings typically result in more favourable health outcomes.[6] This trend is especially salient for the care of Black patients: one study noted that treatment of Black men by Black physicians can reduce the Black–White disparity in cardiovascular disease mortality by 19%. Concordant physicians were viewed as more trusted sources of information and care.[6,9] Unbound by distance, telehealth can enable

patients to more conveniently connect with concordant doctors, facilitating stronger relationships and trust in these emerging systems.

Although perhaps necessary in the short term, patient–physician concordance is not a sustainable long-term solution. Medical education reforms will be necessary to ensure that health professionals are proficient in delivering high-quality care via telehealth to all patients. In an encouraging step, the Association of American Medical Colleges published competencies necessary for telemedicine, including considerations of equity and communication, yet we must ensure that medical practitioners are able to uphold these standards in practice. Training on provision of care via telemedical platforms ought to be made compulsory in medical education, with both didactic and hands-on components. Medical students should have the opportunity to engage with patients of minority backgrounds to ensure that their care is socially and culturally conscious. Additionally, it is important that physicians can recognise their own implicit biases through further integration of implicit bias curricula, such as the Implicit Bias Training Guide.[10] Robust patient–clinician interactions require physicians to uphold this conscientiousness—especially given the challenges of interpersonal interaction via digital interfaces. As changes in medical education curricula provide hope of ensuring that future medical professionals can provide effective health care over digital platforms, training in telemedicine should also be integrated into continuing medical education offerings to ensure that practising physicians can improve their deli very of telehealth.

Yet, the necessity of creating strong patient–clinician relationships extends beyond the realm of telehealth and relies on trust that is built during in-person health care visits. In fact, given the dialectical interactions between telehealth and trust in health services, in-person relationships can also shift patients' perceptions and use of telehealth services. Moreover, engaging health care workers of minority backgrounds as messengers for health care innovations can also greatly boost trust among these groups.[5] In this sense, in-person care can be leveraged as a mechanism of raising awareness regarding the benefits of telehealth services.

By ensuring that all medical practitioners can effectively establish strong patient–clinician relationships through telemedicine, we unlock its potential to further health equity. However, that work begins by acknowledging the paradoxical nature of the current implementation and practice of telemedicine: a promise of greater equity through convenient access to care, yet the simultaneous exclusion of marginalised groups who are hesitant or lack the resources to use telehealth. As telehealth continues to advance, it is necessary to ensure that no one is left behind.

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