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## Editorial

## Telemedicine in the Time of COVID and Beyond



The coronavirus disease 2019 (COVID-19) pandemic and the resulting orders regarding social distancing have spurred health care providers to address patient access and their own financial sustainability by transforming how they deliver care. Telemedicine, defined by the Centers for Medicare and Medicaid Services as two-way audio–video communication between a physician or other health care provider and a patient, has been at the forefront of this transformation [1,2]. In 2016, only 11.8% of family physicians and pediatricians in the U.S. worked in a practice that used telemedicine [3]. After 2 months of the COVID-19 pandemic, only 9% of primary care physicians worked in a practice that did not offer telemedicine [4]. Federal and state policies regarding licensure, equipment security requirements, locations of service, the roles of Federally Qualified Health Centers and Rural Health Centers, and the ability to prescribe controlled substances changed rapidly to accommodate the surge telemedicine use [5]. Telemedicine has been used effectively to meet the needs of adolescents in schools, inpatient settings, and primary care practices for the past decade [6,7]. The dramatic increase in care afforded by telemedicine provides new opportunities for expanding the reach of multidisciplinary adolescent health care while simultaneously raising concerns regarding adolescent confidentiality and the impact on health disparities and health equity.

Telemedicine provides the ability to transform care from being practice centric, where patients and families must adhere to clinic schedules and physical location, to patient centric by decreasing travel and missed school and work [8]. However, telemedicine has come under significant scrutiny in the pediatric community since Ray et al. [9] demonstrated that direct-to-consumer telemedicine providers followed antibiotic prescribing guidelines much less frequently than primary care prescribers (59% vs. 78%, respectively). It is important to note that the telemedicine providers in this study were employed by a large national telemedicine company, as opposed to working collaboratively with a patient's medical home. Integrating telemedicine into a patient's medical home or within a network of collaborating providers may both decrease barriers to access and improve the overall quality of care [10].

This month, the *Journal* features two articles that illustrate the abilities of two academic programs to quickly scale telemedicine programs to maintain access to care for adolescents in the

context of the COVID-19 pandemic [11,12]. Both articles identify issues commonly raised by adolescent medicine professionals when discussing telemedicine implementation. These include maintaining patient confidentiality, the impact on office-based care models, and the potential impact of telemedicine on health disparities and health equity. There is also a shared call for increased research regarding the use of telemedicine in adolescent health care.

Confidentiality can be compromised when an adolescent's responses are limited or coerced because of the presence of parents or others during the encounter or when the technology itself offers inadequate security. The American Telemedicine Association's Operating Procedures for Pediatric Telehealth recommends establishing who is with the patient, both on and off camera, but does not extend its guidance to the degree that is seen in many practices [13]. Barney et al. [11] identified seven of 322 (2.1%) visits, and Wood et al. [12] identified two of 392 (.51%) visits, where confidentiality was not able to be maintained. The authors recommend the use of headphones and chat functions as ways to provide confidential care in settings where privacy cannot be guaranteed.

Adopting telemedicine requires evolving patient care workflows and potentially redefining the patient encounter. When transportation barriers are removed, brief, more frequent interactions with a patient may allow for a more comprehensive clinical picture of an adolescent. Wood et al. [12] were able to move quickly to multidisciplinary visits as their technology evolved, highlighting the benefit of the team's ability to have frequent contact with a patient with an eating disorder and her parents.

Concerns regarding the limits of a video-only physical examination may be addressed through partnerships that expand the geographic reach of an adolescent medicine practice. A community pediatrician or family physician could undertake the physical examination, screening, laboratory testing, and immunization portion of an adolescent well visit, whereas partners in adolescent health could provide expertise for complex reproductive health needs, gender-affirming therapy, or mental health services.

The ability to guide a patient to a higher level of care is an essential component of a comprehensive telemedicine program. When telemedicine is not able to meet the health care needs of

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an adolescent because of the need for a genital examination, laboratory testing, or a procedure, the responsibility for making this transfer lies with the medical provider and not the patient. Stand-alone direct-to-consumer telemedicine, including insurance-funded “on-call” services, often does not automatically share records and can lead to more fractured care. As the specialty of adolescent medicine expands its use of telemedicine, technology must improve collaboration rather than create silos.

Significant concerns exist across health professions that the rapid adoption of telemedicine may exacerbate health disparities. Nouri et al. [14] recently proposed four key actions that must be taken when developing new telemedicine programs: “(1) proactively explore potential disparities in telemedicine access; (2) develop solutions to mitigate barriers to digital literacy and the resources needed for engagement in video visits; (3) remove health system–created barriers to accessing video visits; and (4) advocate for policies and infrastructure that facilitate equitable telemedicine access”. Applying an adolescent health perspective to these four key actions will facilitate the development of a framework for incorporating telemedicine into adolescent health care and assist in defining an advocacy agenda.

There is currently little research regarding the use of telemedicine in adolescent health or large-scale studies within the specialty of pediatrics. The Supporting Pediatric Research in Outcomes and Utilization of Telehealth (SPROUT) research network is focused on establishing an evidence base for pediatric telehealth [15]. The SPROUT-CTSA Collaborative Telehealth Research Network, a National Institutes of Health–funded program housed at the American Academy of Pediatrics, is a resource for research support and can assist in the development of research projects.

Adaptive policy and reimbursement changes created in response to the COVID-19 pandemic may be rolled back as the pandemic resolves, and programs will need to be prepared for more regulatory requirements. Ideally, the changes in the Ryan Haight Act allowing for controlled substances for opioid use disorder treatment will remain intact, along with the new ability of Federally Qualified Health Centers and Rural Health Centers to bill Medicaid and Medicare as providers of telemedicine. The loosening of security measures that allowed FaceTime to be used for telemedicine may be reversed, as more focus is placed on patient safety and security.

As the adolescent health community becomes more proficient at meeting patient needs through telemedicine, there are opportunities to explore the use of other modalities of virtual care, such as digital therapeutics and remote monitoring technology, to

improve the scope of our care. The development of adolescent-focused clinical care, policy, and research frameworks will help to ensure that all adolescents benefit from new technologies, and that future implementations do not require the same intensity of effort as outlined in the excellent articles in the current issue [11,12].

Steve North, M.D., M.P.H.  
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