Advancing Telemedicine Within Family Medicine’s Core Values

Anthony Cheng, MD,1 Cirila Estela Vasquez Guzman, PhD,1,2 Tyler C. Duffield, PhD,1 and Holly Hofkamp, MD1

1Department of Family Medicine, School of Medicine, Oregon Health & Science University, Portland, Oregon, USA.
2Oregon Health & Science University Fellowship for Diversity in Research, Oregon Health & Science University, Portland, OR, USA.

Abstract
Telemedicine adoption has been gradual but accelerated during the COVID-19 pandemic. It is important for us to pause and consider how this impacts family medicine. How do we ground ourselves so that we use technology to enhance our practice while maintaining fundamental family medicine values? In this article, we explore how telemedicine interacts with five family medicine tenants: contextual care, continuity of care, access to care, comprehensive care, and care coordination. Keeping this framework in mind and using a health equity lens can help us retain fundamental family medicine values as we adapt to rapid technological change.

Keywords: telemedicine, family medicine, health equity, virtual visits

Introduction
The pandemic caused by COVID-19 has accelerated the application of telemedicine to promote physical distancing while continuing to provide medical care.1 The changes seemed to have occurred overnight, but telemedicine has existed for many decades.2 The gradual adoption of telemedicine is a result of a number of barriers. Reviews have reported challenges including limited exposure/knowledge of telemedicine, lack of devices, organizational readiness, motivation, incentives, unsuited services, and fit with workflows and systems.3–5 Recent events required a rapid adoption of telemedicine but there remain concerns. A fundamental question that lingers is how will telemedicine impact the discipline of family medicine? We reflect upon our core values because they enable our discipline to adapt the technology to our values rather than allowing the technology to change our practice.6

The 5 C’s of Family Medicine
The core values of family medicine, articulated in the 5 C’s of family medicine include: contextual care, continuity of care, access to care, comprehensive care, and care coordination. Here we outline how telemedicine can be deployed in a way that maintains these values (Table 1).

CONTEXTUAL CARE
Visits conducted through videoconferencing may decrease the ability of providers to provide contextual care if significant others who would normally accompany a patient are no longer included in visits. The relationship between patients and staff can also elicit important facts that might not arise in a virtual visit. When using telemedicine, we can encourage patients to include other important people in their life who themselves may find it difficult to travel to the clinic. We can also pay attention to visual clues that offer social and environmental context and increase the contextual care provided by the entire medical team.

CONTINUITY OF CARE
Virtual visits are often provided outside of the medical home, thereby disrupting continuity of care. It is critical that family medicine provides telemedicine options within the medical home. Providing a blend of in-person and telemedicine options will likely increase continuity.

ACCESS TO CARE
Widespread telemedicine adoption increased utilization in primary care among white patients while decreasing among black/African, Latinx, Asian/Pacific Islander patients.7 Virtual visits also increase access for patients with physical disabilities or multiple social strains such as child-rearing, elder care, or unstable employment. This may be especially impactful for low-income patients for whom the cost of
transportation and time away from work can be significant. However, we provide access to telemedicine outside of traditional office hours, increase education around telemedicine services, and ensure access to interpreter services.

COMPREHENSIVE CARE
The current medical home model relies on workflows designed for in-person team-based care interactions for multiple important functions including nurse care management and integrated behavioral health. There are also services that patients need that simply cannot be done virtually (vaccinations, laboratories, procedures, physical examinations, etc.). These clinic workflows must be modified and will require asynchronous population health strategies.

CARE COORDINATION
Telemedicine options such as e-visits, telephone visits, and video visits may improve care coordination by facilitating more closed loop effective communication between providers and patients. However, team-based care may be less effective with telemedicine encounters that occur just between provider and patient. In addition, team functioning may be inhibited as more staff work from home. We need to build and sustain healthy, relational, and high-functioning teams as the telemedicine reduces the amount of time that team members spend colocated, compounding the challenges of the clinical-burnout epidemic in the “tail” of the pandemic.

Conclusions
Telemedicine can enhance our ability to provide equitable care, but programs must be developed to account for family medicine’s core values. Health disparities are oftentimes magnified when new modalities of care are implemented. It is crucial that telemedicine programs be developed to maximize the potential equity gains and minimize harm. Family medicine is well poised to influence telemedicine in this arena.

Convenience, quality, safety, and cost-effectiveness of health care9 remain drivers of telemedicine adoption. A focus on the 5 C’s framework may help us design systems that preserve our values, produce desirable clinical outcomes, and improve health equity.

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Address correspondence to:
Anthony Cheng, MD
Department of Family Medicine
School of Medicine
Oregon Health & Science University
3181 SW Sam Jackson Park Road
Mail Code: FM
Portland, OR 97239-3098
USA

E-mail: chengan@ohsu.edu

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