Title: Students Leading a Free Clinic: Lessons Learned About Digital Health in the Age of COVID-19

Author names: Marina E. Shatskikh*, Anna Kirillova*, Lucy Z. Shi
*These authors contributed equally to this work
Degrees: Bachelor of Science, Bachelor of Arts; Bachelor of Science; Doctor of Medicine
Affiliations: University of California-Davis; University of Pittsburgh Medical Scientist Training Program, University of California-Davis; University of California-Davis Health

About the author: Anna Kirillova and Marina Shatskikh are graduates of the University of California-Davis and are co-founders of the Nadezhda Clinic, a free, student-run clinic affiliated with the University of California-Davis School of Medicine. Anna Kirillova is currently a first-year medical student at the University of Pittsburgh, and Marina Shatskikh is a full-time medicinal chemistry research associate at Gilead Sciences, Inc.

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Personal, Professional, and Institutional Social Network accounts.

- **Facebook:** @nadezhdahealth
- **Twitter:** @AKirillova0424, @MarinaShatskikh
- **LinkedIn:** Nadezhda Clinic

Discussion Points:

1. How would you approach patients who have historically preferred in-person visits about using telemedicine?
2. As a healthcare provider, how would you foster trust with patients during virtual visits?
3. Within free, student-run clinics, what special services can medical students implement now to extend additional support to their patient communities during the unprecedented time of COVID-19?

4. How do we bring technologies into free clinics, given that we are unable to see patients in-person during COVID-19?
5. How do we keep patients motivated to take care of their health during this time?

THE EXPERIENCE.

Listening through the voicemail over the weekend, there is a missed call from our clinic patient, "Galina." She needs a hypertension medication but cannot obtain it without a paper prescription. We call our student secretary, in charge of maintaining paper-based charts. The secretary needs to bring the chart to the treating physician's office across town for a signature and then meet the patient to give her the prescription. Two weeks later, this method of issuing prescriptions becomes impossible. In response to the state-wide shelter-in-place order in California[1] due to the coronavirus disease 2019 (COVID-19), we are forced to close the doors of our student-led free clinic, disabling provision of essential care to our community.

Throughout the United States, free clinics play a unique role of providing care to underserved, often uninsured, populations who need preventative healthcare the most. Such student-led initiatives foster solidarity and equality within the community,[2-3] driving towards more accessible healthcare. In our clinic, 50% of patients are uninsured, 68% do not speak English, and many rely heavily on their community for social support. Many of our patients are ineligible for government-funded health insurance, which may be detrimental to their financial and physical well-being,[4] emphasizing the need for free, culturally-sensitive clinics to address gaps in access and drive towards health equity. To address these challenges, our clinic relies on volunteers to not only provide essential healthcare, but also offer medical interpretation services, prescription vouchers, and health insurance enrollment guidance to help patients navigate the medical system. Like many other clinics, we are focused on building a community center for free care and preventative medicine, striving to establish a rapport with our community by taking extra time to educate and help patients manage their health.[5] In light of the disproportionate impacts of COVID-19 on racial and ethnic minority groups,[6] there is now greater emphasis on establishing consistent healthcare within vulnerable communities.

A month into quarantine, Galina calls again requesting another medication. Our hands are tied. Without the ability to fulfill her requests in-person, we realize the need to innovate our system of care. Seeing the power of digital health within larger health systems, we aggressively pursue the implementation of telemedicine to enable virtual visits with our patients. Like most free clinics, dependence on private donations, grants, and university support to finance operating costs[5] has historically limited our ability to implement an electronic system. However, the spread of COVID-19 has emphasized the importance of implementing telemedicine to enable the continuation of essential care to vulnerable patient populations, and multiple organizations, such as the National Association of Free and Charitable Clinics, have established new funding opportunities. With the expansion of grants available, our clinic has been able to quickly obtain an electronic medical record system, teleconferencing equipment, and software[7] to continue caring for our patients during this unprecedented time. Re-opening our clinic virtually, we can continue treating chronic medical conditions while also distributing vital information to our local community regarding public health measures to reduce the spread of the disease. Many patients with pre-existing conditions, like Galina, can now be seen in the safety of their homes and we can reconnect with our community, decreasing the social isolation of sheltering-in-place.

The cost reduction and accessibility to resources associated with establishing a digital system have been instrumental in bridging the gap in care between low-funded clinics and established healthcare systems. The

diffusion of innovation inspired by the pandemic has the potential of bringing care to more places as limitations fade away. Our clinic, which operates from a repurposed community office, serves as an example that providers do not need sophisticated infrastructures or financial backing to be successful in this new age of digital health.

As we try to implement virtual visits clinic-wide, however, most of our patients are not keen on the idea. After announcing the new system of care to our patients, we learned that few are interested in being cared for virtually. Even our loyal patient “Oleg”, who needs urgent help with a swollen elbow, still prefers an in-person visit with an herbalist instead of a tele-visit, due to concerns about the accuracy of diagnosis over video. Already disconnected from the Western medical system, many of our patients, like Oleg, value the human connection to build trust with a physician and ensure their concerns are heard and addressed. Oleg’s reluctance showcases a limitation of telemedicine that may leave pockets of the population underserved. While telemedicine is becoming the standard of care in traditional hospital settings, such advancements may not be reached by small, underserved communities, like ours, already struggling to find a bridge between traditional and Western medicine.

Although it is impossible to deny that the implementation of digital health technologies has made aspects of our clinic functions more streamlined, it is vital to address the arising challenges of transitioning to digital health. We are now able to quickly provide urgent assistance, such as medication refills, without a need for an in-person visit. However, more innovation may not be met with the same enthusiasm in patient populations. The lack of human connection that comes with digitized care may take away the human touch that is conducive to patient comfort and trust. Although our clinic now has an established telemedicine system, its real success will be demonstrated by how many patients are able to utilize it longitudinally. While technology is necessary for progress, disparities in its use will continue to exist, widening the gaps in proper care delivery. Advocating for its use and communicating its true purposes is as important when striving for health equity. The COVID-19 pandemic has only illuminated these gaps in the context of underserved populations and emphasized patients’ desire to maintain face-to-face interactions when seeking medical care. More education and advocacy about the safety and effectiveness of telemedicine is needed to implement this technology in patient care nationwide.

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FIGURES AND TABLES.

None