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A Manager's Perspective: Implementation and Evolution of a Novel Telehealth Protocol in a SRFC

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Abstract

During the COVID-19 pandemic, the Agape clinic's student run component adapted its protocol in order to restart virtually. Utilizing the pre-existing telehealth protocol to abide by strict safety restrictions, Agape was the only active student-run free clinic (SRFC) on campus during this period. Initially, the virtual protocol combined Doximity Dialer and Microsoft Teams; however, several limitations of this protocol hindered patient care. As the need to continue virtual clinic operations became apparent, the Agape clinic managers implemented a new virtual workflow using Zoom that was able to overcome many of the challenges encountered with the previous virtual platforms. After over a year of virtual operations, a successful telehealth protocol was developed – one that can be an asset to SRFCs beyond COVID-19.

Introduction

Affiliated with the University of Texas Southwestern Medical Center (UTSW), Agape Multidisciplinary Clinic (Agape) is a student-run free clinic (SRFC) that partners with the Agape Clinic to host bi-monthly family medicine and pediatric clinics for community members in an under-served and primarily Spanish-speaking area of Dallas. Six medical students serve on the leadership for the SRFC operations, and in the fall of 2020, the managers assumed a telehealth protocol developed by the previous student leaders in response to COVID-19.

Initial Telemedicine Protocol

Bi-monthly, Agape held virtual clinics through Doximity Dialer and Microsoft Teams – two platforms that offered free and HIPAA-compliant services. Doximity was selected due to its

user-friendly interface and Teams was accessible to everyone at UTSW; the two platforms also overlaid compatibly and were therefore chosen initially. The clinic managers connected with volunteers and attending physicians through Microsoft Teams and each patient's care team utilized separate Teams rooms (Figure 1). While the clinical care team connected via Teams, they connected with patients through Doximity. Refer to Figure 2 for a clinic workflow using Teams and Doximity.



Figure 1. The clinical care team involved in patient care at Agape.

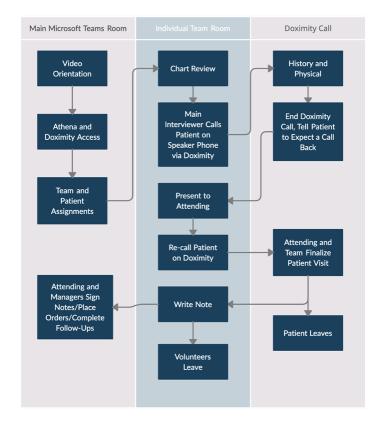


Figure 2. Telehealth protocol utilizing Microsoft Teams and Doximity Dialer.

Though facilitating virtual clinics allowed Agape to continue operations, the clinic encountered numerous challenges related to the telemedicine platforms. One of the challenges included patients missing the incoming clinic calls through Doximity and problems following prompts on their smartphone to join. Each step introduced confusion as patients navigated the platform: for example, patients did not recognize the caller ID or know how to join the call. Often, the clinic reached out to patients multiple times before the call was answered, and no-shows resulted from difficulties encountered in making contact. Furthermore, embedding one video platform into another (i.e., presenting a Doximity video call within a Teams video call) caused technology glitches. Because of the reliance on functional technology, the inability to share video and audio impeded workflow. The clinic faced this obstacle because Doximity's free service only allowed five people on a call so often the entire team could not directly communicate with the patient. There were instances where only one volunteer could speak with the patient on Doximity, and the rest of the team had to listen in through Teams and relay questions to the patient through the point of contact. For debriefings with the attending, the team needed to instruct the patient to remain on the Doximity call while they spoke separately. The volunteer who called the patient would press "end call" once on Doximity to effectively place the call on hold; however, there were instances where the patient thought the call ended and the team needed to reach them again. The limitations of Teams and Doximity confused participants and slowed clinical encounters due to technical issues that arose throughout the clinic protocol.

Developing an Improved Telehealth Protocol

Agape experienced technical difficulties during the initial implementation of telemedicine. The protocol utilizing Doximity and Microsoft Teams did not allow for an efficient workflow, which impeded patient care and communication. Therefore, Agape searched for a new telehealth platform. After obtaining a HIPAA-compliant Zoom license, a new telehealth protocol was created to virtually simulate a clinical environment so that the process would be intuitive for all involved. All participants joined the Zoom meeting and were shuffled between breakout rooms that paralleled various points in a patient visit such as waiting and examination rooms. In both the original and improved telehealth protocols, documentation was completed using Athena, an electronic medical record (EMR) system that was more affordable than other EMR systems. Figure 3. outlines the virtual clinic workflow using Zoom.

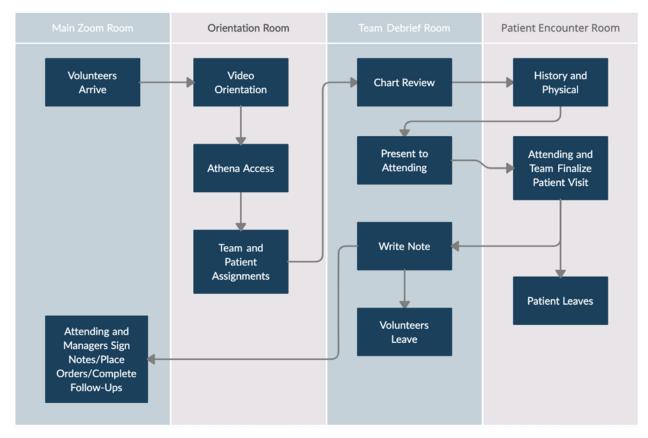


Figure 3. Telemedicine protocol using HIPAA-compliant Zoom.

Zoom was a preferable interface because it allowed the clinic to take place using a single telecommunication interface. Most participants were familiar with Zoom, resulting in a more efficient setup and a smoother user experience. One notable feature of Zoom is its breakout room functionality, which allows volunteers to seamlessly move between the main room, consult room, and patient exam room. Delineated expectations for volunteers in each of the breakout rooms enhanced performance. Zoom also features a waiting room option, which keeps the participants from entering the Zoom call until the host allows it. This allowed the managers to allow patients into the meeting at their appropriate appointment times, prepare to greet them in the main room and inform them of expectations during the clinic visit.

One more advantage of our Zoom procedure was the ability of the patients to contact the Agape managers before the clinic if they had any questions regarding the visit. The old protocol required the main Agape clinic coordinators to tell the patients to expect a call around their appointment time. However, with the new protocol, the patients were emailed a link in advance of the clinic which included a manager's contact information. This increased communication between patients and managers, and patients were able to contact the managers if they were having technological challenges.

Continued Limitations of Telehealth

While the new telehealth protocol allowed for more successful clinics during the COVID-19 pandemic, several limitations persisted due to the nature of telemedicine. One critical issue was that the clinic managers were forced to limit which patients could be seen based on access to resources such as email and internet in order to send patients Zoom links for the clinic. Additionally, telehealth necessitated that patients not only had the appropriate technology and space to communicate via video, but they also needed to understand how to use it. The primary purpose of the Agape Multidisciplinary clinic is to provide free medical care to an under-served patient population that would not otherwise have access to care due to issues such as affordability. However, the same patient population also experiences barriers in accessing resources needed to conduct telehealth visits, such as a stable internet connection, email addresses, or smartphones with reliable audio and video. Another criterion that had to be used was whether or not the health concern the patients presented with was appropriate for telemedicine. Trying to do a thorough visit without the ability to conduct a full physical exam made some chief complaints nearly impossible to fully address. Despite efforts to limit patients to those with chief complaints amenable to telehealth, there were several occasions where patients had to be sent away from their virtual appointments because the attending could not adequately treat them over telehealth.

Holding clinic virtually also presented difficulties coordinating with the general Agape clinic, particularly in accessing patients' laboratory and imaging results which were not always available in Athena . This resulted in frustration for the patient and the clinical team when proper care was impossible because of a lack of access to the appropriate work-up to properly evaluate the patient. Lastly, there were many occasions where patients did not show up for their virtual appointment or were unable to access the telehealth platform at the last minute. This created challenges because the patient ultimately did not receive care, and the managers were also unable to fill the spot with another patient who could have been cared for by the clinic team. While not unique to telehealth, this issue was magnified by the virtual clinic format.

Concluding Thoughts

As UTSW pandemic restrictions lighten, Agape has been transitioning to a hybrid model of virtual and in-person clinics. From adapting to an existing telehealth protocol to creating a new procedure mid-year, the Agape SRFC managers have learned how invaluable the flexibility of having a successful telehealth protocol remains to any SRFC clinic. SRFCs can turn to telehealth as a tool to adapt to future surges of COVID-19, to augment the number and types of patients the clinic serves, or as a platform to increase volunteer engagement in the community during times of the year when students are off-campus, such as holiday breaks or away-rotations. In addition, there is an element of convenience for both patient and provider inherent to telehealth that lends itself well to visits regarding check-ins for chronic medical conditions,

laboratory or imaging reviews, and medication checks. While telemedicine has its limitations, it also increases accessibility of care for patients in healthcare deserts or who lack the transportation to come to the clinic in person. With this upgraded telehealth protocol, the Agape managers are confident in their ability to seamlessly switch from in-person to virtual for any reason and hope this Zoom protocol can provide insight to other clinics in developing or enhancing their telehealth protocols.