Expanding Virtual Health Capabilities Into Trainee Health

MAJ Elizabeth A. Poindexter, AN, USA; MAJ Amanda Rodriguez, AN, USA; COL Timothy Switaj, MC, USA

ABSTRACT Virtual health and secure messaging gained newfound relevance in medicine during the coronavirus disease (COVID)-19 pandemic. For a military trainee health care clinic located on Joint Base San Antonio, the McWethy Troop Medical Clinic (TMC), implementation of virtual health and secure messaging services meant decreased risk of COVID-19 exposure for trainees and clinical staff. Through ongoing utilization, these services also made impacts to reduce loss of instruction time and improve access to care for the McWethy TMC trainee population. In defining the challenges, successes, and future implications for virtual health and secure messaging at the McWethy TMC, key lessons emerge for other military trainee clinics. The key concepts explored in this article are virtual health and secure messaging.

INTRODUCTION

During the coronavirus disease (COVID)-19 pandemic, virtual health and secure messaging launched into newfound levels of importance and primacy in primary and specialty care arenas. For one niche of military primary care, trainee health, virtual health encounters, and secure messaging provided a disease mitigation strategy as well as a method to reduce loss of instruction time and increase access to care. The purpose of this commentary article is to outline the implementation of these services at McWethy Troop Medical Clinic (TMC), define the challenges and successes, and explore the next steps in sustainment and optimization. The key concepts explored in this article are virtual health, which, for the purpose of this article, refer to telephonic healthcare encounters and secure messaging, an electronic platform that enables secure email and document exchange between a patient and their healthcare team.

McWethy TMC is a medical readiness and primary care clinic located on Joint Base San Antonio (JBSA), Fort Sam Houston, Texas. The McWethy TMC provides Tri-Service (Army, Navy, and Air Force) trainee healthcare. The majority of this trainee population is enrolled in service-specified Advanced Individual Training for medical occupational specialties. The clinic’s challenge is to deliver timely, efficient, high-quality acute and primary health care without jeopardizing instructional time. Generally, trainees may not miss more than 24 hours of instruction time, lest they risk being recycled in their program.

Before the COVID-19 pandemic, McWethy TMC’s sole method of primary care delivery was face-to-face encounters. Virtual health encounters were not routinely used because trainees were not allowed to use cell phones during instruction time and not enrolled in Electronic Health Record systems that support virtual health or secure messaging platforms. Pre-COVID-19 average daily appointments were 100% face-to-face. From March 2020 through August 2020, the appointment ratio was 60% virtual and 40% face-to-face. From September 2020 through the present time, the appointment ratio is 80% face-to-face and 20% virtual. There have been successes and challenges for McWethy TMC in the sustainment of virtual care and secure messaging as the COVID-19 pandemic lingers. However, access to care and reduced loss of instruction time anchor these tools in relevance and dictate disruption in traditional models of trainee healthcare delivery.

VIRTUAL HEALTH DURING COVID-19

Policies

In March 2020, McWethy TMC care models expanded to encompass virtual health, to minimize the risk of contracting COVID-19 for healthcare workers and trainees. The rapid uptick to approximately 60% of appointments being conducted virtually during the peak of the COVID-19 pandemic was made possible by the swift deployment of the Defense
Health Agency, Army, and local departmental policies and clinic standard operating procedures (SOPs) that increased access to virtual health. Clinic SOPs were developed to govern what services could be provided through virtual care as well as define the screening process for virtual care visits in this population. The relevant portions of these SOPs can be found in Figs. 1 and 2.

**Challenges**

Even with written policy guidance on virtual health utilization, there were challenges for virtual health expansion. Challenges included receiving training command buy-in, adapting existing clinical workflows, limited technological platforms, and overcoming clinician skepticism. Most JBSA training commands did not allow trainees to carry their cell phones.
e. **Screening:** Virtual Health (VH) appointments:

i. Ensure that before beginning any screening for virtual visits that you confirm the patient’s identity using the two patient identifiers (name and date of birth).

ii. Confirm and document the patient’s physical address and phone number where patient can be reached in event of emergency or disconnection during the VH session.

iii. Vital Signs will be deferred. The only exception is pain. If the chief complaint is related to pain or the patient states they are experiencing pain during screening.

iv. Using the correct TSWF form, the screener will screen the patient no sooner than 24 hours prior to appointment.

1. Screen patient answering all applicable sections in the TSWF form, not limited to but including:
   a. Chief complaint
   b. Allergies
   c. Current medications
   d. PHQ-2
   e. C-SSRS
   f. Safe at home TSWF question
   g. Any other screening as clinically appropriate for the visit (e.g., pain)

v. In an emergency situation, immediately dial 911 on another telephone and report the emergency. Try to maintain active communication with the patient and emergency dispatch until the patient is under the direct care of the emergency first responders. PCM and leadership should be notified as soon as possible and provide the full details of the emergency situation.

During instruction time before COVID-19. Through continual engagement and partnership with training commands, the trainees were permitted to carry cell phones in order to facilitate virtual health appointments.

Clinical workflows were adapted to limit the risk of contracting COVID-19 for patients and clinical staff. One such modification included optimizing the existing outdoor space previously used only for sick call formation. McWethy TMC utilized this covered space to screen patients by phone and rule out potential exposure to COVID-19 before having patients come inside the clinic. Patients with questionable symptoms were dispositioned, treated, and tested for COVID-19 in this area. This adapted workflow to flex use of existing physical space proved important in disease mitigation and reduction of occupational exposure to COVID-19.

The initial rollout for Defense Health Agency–approved video platforms lagged behind the immediacy of the demand for virtual health at the start of the COVID-19 pandemic. McWethy TMC staff used existing information technology and network infrastructure to quickly adopt telephone virtual health to conduct primary and acute care appointments. This use of existing infrastructure was backed by department and organizational leadership. Partnership with training commands allowed trainees to carry cell phones and further
enabled rapid deployment of telephone virtual health appointments. Initial staff hesitancy toward implementation of virtual health was assuaged by training command support, modification of workflows to reduce exposure risk, and leadership engagement. Further staff buy-in was garnered through their involvement in workflow reviews and incorporation of their feedback into ongoing implementation. However, the inclination to revert to prior practices prevailed and virtual health utilization dwindled in the latter half of 2020, with a mere 10% utilization rate for virtual health appointments in the month of November 2020. Contributing factors include increased demand for face-to-face appointments from patients and command teams.

**Successes**

Through collaboration between training commands and McWethy TMC clinic leadership, trainees were allowed to carry cell phones during class time. This partnership facilitated coordination for ideal times and spaces in the training areas to conduct virtual health visits. In addition to the successful execution of virtual health appointments for trainees with suspected COVID-19 and other acute concerns, virtual health services expanded to include Periodic Health Assessments, overseas screening, medication refills, and routine health services. Routine health services included follow-up from face-to-face appointments and review of clinical study results. Currently, virtual health appointments make up 33.8% of the templated appointments. With concerted efforts to increase virtual health utilization, clinic leadership was able to increase virtual health appointments to 46% utilization in March 2021.

**Next Steps**

The next azimuth for continued implementation of virtual health includes two-way video communications. McWethy TMC deployed the new MHS Video Connect software in August 2021 with limited usage. There are plans to increase utilization through a process improvement project in early 2022. Other potential avenues of expansion include virtual health group visits for health promotion and education. Virtual health has the potential to be a major force multiplier through video or text nurse advice platforms as well as a platform for interactive patient education tools on contraception options, preventing sexually transmitted infections, boot and foot care, and musculoskeletal home exercise programs.

**SECURE MESSAGING**

**Policies**

Tricare Online (TOL) Secure Messaging was leveraged during the COVID-19 pandemic to increase access to care and reduce lost instruction time for the McWethy TMC trainee population. Previously, trainees were not enrolled in TOL secure messaging, as a primary care manager (PCM) is not assigned during training due to transient status, in accordance with Health Affairs policy number 05-014. However, it was readily discovered that trainees could still be enrolled in TOL secure messaging without a PCM assignment.

**Challenges**

The hurdles of secure messaging for McWethy TMC included building enrollment, engaging directly with trainees, and improving sign-up procedures. McWethy TMC nurses collaborated with TOL secure messaging coordinators to establish enrollment events for trainees. These nurse-led events and education briefs on TOL secure messaging were provided at the command and training sites during onboarding to JBSA. This allowed for direct enrollment from training sites. The other main challenge was staff unfamiliarity with steps to enroll a patient into the platform. To counter this challenge, all clinical staffs were provided instruction on how to enroll trainees in TOL secure messaging.

**Successes**

Enrolling trainees in TOL secure messaging during face-to-face appointments and during onboarding ensures that all trainees receive pertinent information on how to virtually interface with McWethy TMC. The use of the secure messaging portal allows trainees to send messages privately to the McWethy TMC healthcare team. Trainees can ask questions and receive non-emergency healthcare advice, request appointments, and communicate with the McWethy TMC healthcare team on their own time. Virtual health appointments and TOL secure messaging are vital services that increase access to care for the trainee population while reducing lost instruction time and decreasing the potential COVID-19 risk of a face-to-face appointment. The initial efforts are ongoing and continue to ensure enrollment for hundreds of trainees for each training iteration. As a major success in this effort, Navy training commands require all their trainees to sign up for TOL secure messaging, which is an ideal future state for all the Fort Sam Houston training commands and trainees.

**Next Steps**

As patient engagement through TOL SMS has increased, areas for improvement have been identified. McWethy TMC does not have after-hours care services; trainees have to use either the Nurse Advice Line or the emergency room after-hours. In the future, there is consideration to expand clinic hours to allow for increased real-time engagement with trainees after their instruction time concludes for the day. Also, McWethy TMC is developing procedures to increase enrollment through continued presence at in-briefing and in-processing sites at JBSA.

**IMPLICATIONS**

As these workforce strategies have been implemented relatively recently, there is still limited data on their impact. There
is substantial potential for virtual health integration in areas of acute care, primary, preventative, and military population health. There is a need to increase virtual health strategies to reduce healthcare costs while improving access to care, as well as patient and provider satisfaction. Virtual health should be here to stay as proper implementation could revolutionize care to the trainee population and significantly reduce lost instruction time as well as the number of trainees who medically recycle. At a minimum, the current McWethy TMC virtual health efforts are saving an hour and a half of lost instruction time, per trainee, per virtual health visit. Furthermore, there is a crucial need for research in primary and acute care virtual health, particularly the cost and time effectiveness of virtual health in the military trainee population. If research demonstrates the value for this population, virtual health and secure messaging will serve as integral components of trainee medicine across the entire Military Health System.

CONCLUSION
Virtual health and secure messaging were successfully introduced and sustained at McWethy TMC as a result of the COVID-19 pandemic. These unique healthcare options and tools decreased trainee lost instruction time, increased access to care, and mitigated the spread of COVID-19. The implementation of these tools was not without challenges. Among these barriers were training command buy-in, McWethy TMC staff buy-in, physical space and technology adaptions, and direct engagement for TOL enrollment. Overcoming the challenges led to successes which included a strengthened partnership with the training commands, provider engagement, expanded virtual health utilization at McWethy TMC, and collaboration to increase enrollment for TOL secure messaging. There are several avenues to improve virtual health and secure messaging for the trainee population including video virtual health and expanded hours at the McWethy TMC to better meet trainee availability. The lessons learned at McWethy TMC for virtual health and secure messaging may inform other military trainee clinics, translate to new areas of research for this unique military population subset, and implicate market analysis for the future of military trainee health care. With the successful sustainment of these tools, virtual health and secure messaging services will continue to improve McWethy TMC’s high-quality, efficient care delivery while preserving trainee instruction time.

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CONFLICT OF INTEREST STATEMENT
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