

Title: Virtual Health: Developing a Curriculum for Virtual Care Delivery

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Specific educational aims

This project aims to develop a virtual health coaching workflow and training curriculum to be integrated into an existing medical school elective course and clinical clerkship curriculum.

Aim 1: Develop a training module for pre-clerkship medical students on virtual health coaching and care delivery, focusing on advanced techniques of communication, ethics, and navigating technology.

Aim 2: Develop workflows for clinic-based implementation of virtual health coaching, including a range of virtual health coaching scenarios.

Aim 3: Train medical students during their family medicine clerkship in advanced techniques of communication, ethics, and navigating technology to triage and communicate with patients remotely.

II. Project rationale

Virtual communication is becoming an integral part of health care delivery and will only continue to grow in importance (Appel et al, 2011, Linden et al 2010, Wenneberg et al, 2010, Wolever et al 2013). Virtual health coaching is especially useful in reaching populations that have a high need for, but low access to, regular health coaching (Albaina et al 2009, Hartung et al 2012). However, medical schools have not yet developed comprehensive and longitudinal training curricula to prepare graduates for this challenge. In fact, we found only one published curriculum that detailed virtual health training in medical schools (Hartung et al 2012).

How can we prepare our students for patient-centered communication in virtual medicine? At Stanford, through a multi-disciplinary approach, we can learn from other industries, including colleagues from Stanford School of Management, about best practices in effective, personalized, virtual communication. Given the potential for virtual health coaching to reach under-resourced populations and the current lack of training in the medical school curricula across the country, we propose to create such a training module for both pre-clerkship and clerkship students.

We will first pilot the virtual health curriculum with SHIELD (Stanford Healthcare Innovations and Experiential Learning Directive) students and evaluate the curriculum with student feedback and formal assessments. The feedback will then be used to create a proposal to integrate virtual health training into the formal medical school curriculum. At the pre-clerkship level, the curriculum will focus on fundamentals of effective communication, such as building rapport, assessing and maintaining engagement virtually. Building on this foundation, clerkship level students will practice triage skills, conveying a clear, patient-centered treatment plan, assessing comprehension, and formulating a follow-up plan in the virtual setting.

Stanford has the opportunity to develop a novel curriculum in a new and exciting area of practice. This project will empower students to gain concrete skills and expand their knowledge about modern health coaching. Moreover, by integrating the training into SHIELD and the general medical school curriculum, we aim for the results of this project to have a lasting impact.

III. Approach

Aim 1: We will collaborate with content experts in the School of Management to develop training didactics and exercises on virtual health coaching for pre-clerkship medical students. Topics will include, advanced techniques of communication, ethics, and common pitfalls navigating technology. Students will participate in a short didactic training that will be followed by role-play scenarios (see Aim 3 for examples) before engaging in a group debrief. This module will be piloted with SHIELD students in the 2016/2017 school year.

Aim 2: Virtual health coaching workflows and scripts for students will be created by experienced student coaches (from SHIELD) by conducting key informant interviews with clinical preceptors. The second year SHIELD students will then draft workflows and scripts using Omnigraffle software. Students will then pilot the workflows and do PDSA cycles to improve quality and effectiveness.

Aim 3: The virtual health coaching module will be adapted to clerkship level students, while still focusing on best practices of virtual communication, ethics, and navigating technology. During students' family medicine clerkship students will participate in a didactic session followed by a series of role-play stations, triaging different scenarios during a phone/video visit, or email exchange. Examples of station scenarios include: 1) A mother calling for a child with diarrhea ("the last time he had this, it was an ear infection,") and requesting antibiotics; 2) A patient calling regarding abdominal discomfort; 3) A college student calling after unprotected intercourse; 4) A patient email with an attached picture of a rash.

At the end of the clerkship, a formal evaluation will be performed through a video/phone visit with a standardized patient encounter. Students will be assessed based on communication style, medical knowledge, and appropriate treatment plan.

IV. Timeline and plan for implementation

	Sep	Dec	Jan	Feb	Mar	Apr
Aim 1						
Develop and conduct SHIELD training session						
Evaluate feedback						
Aim 2						
Develop scripts for virtual health coaching in the clinic						
Pilot scripts in the SHIELD-associated clinics						
Assess effectiveness of scripts and revise workflows						
Aim 3						
Adapt module for clerkship students						
Pilot module with clerkship students						
Develop curriculum change proposal						
Review and aggregate data for dissemination of results						

V. Anticipated work product

1. A formal workflow to frame each virtual health coaching encounter.
2. An in-class training module for the SHIELD and FM clerkship curriculum.
3. A proposal to integrate virtual health training into the medical school curriculum.

VI. Evaluation plan

Students will be given a survey before and after training to assess the students' confidence in virtual communication, perceived relevance to their education, usefulness/effectiveness of the training, and their likelihood to recommend the session to their peers. Students will complete SP assessment to evaluate knowledge acquisition.

VII. Dissemination of results

1. The results will be shared at Stanford's conference on innovations in medical education.
2. The results will be shared at the American Telemedicine Association's annual conference.
3. We will submit the curriculum to MedEd Portal, an online, peer reviewed database of educational resources for medical providers and trainees.

IX. References

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