

Project Name

Observations of Students in Clinical Settings via iPads

Principal Investigator Pam Youngs-Maher

Campus Upstate Medical University

Year of Project 2012

Tier Tier Three

Project Team

- Ann Botash, Upstate Medical University
- Gene Bailey, Family Medicine Clerkship
- Patricia Powers, Family Nurse Practitioner Program (FNP Track)
- Carol Recker-Hughes, Physical Therapy Education Program
- Joseph Smith, Director of Educational Communications

Overview Summary

Use of iPads to observe real time patient encounters and feedback to participating students in multiple health professions. Written feedback documented outcomes in a web-based database.

Outcomes Summary

Faculty cohort (n=16) in health professions (Nursing, PT, Pediatrics) report FaceTime can be effective for use in Grand Rounds. [Report](#) includes issues regarding secure network connectivity within hospital environments to ensure HIPPA compliance.

Project Abstract

Upstate Medical University utilizes a curriculum model built on didactic and theoretical constructs, and the application of those lessons in clinical settings. Direct observation and feedback is believed to be an effective

method for clinical skills assessments (Mazor, K.M., 2011). Numerous studies demonstrate the value of videotaped or real-time observation of students (Edelstein, D., 1990). Implementation of observations and timely feedback remains a challenge due to clinical demands and preceptor availability.

This project will utilize “distance faculty” (DF) to observe a patient encounter via iPad and provide realtime feedback to the student. Distance Faculty Observation (DFO) will use mobile technology (Apple iPads) for this real-time observation and feedback system. Written feedback will also be documented and available via a web-based database. FaceTime, a free application for iPads, will enable real-time observation with introduction of the Distance Faculty preceptor to the patient/parent and real-time feedback with the student within minutes of the encounter.

Goals:

1. Develop and examine the process of FaceTime precepting to bridge time and distance barriers to observing students. Sharing observation procedures across three colleges will also help us learn from each other as we define “observable clinical skills.”
2. Improve students’ clinical skills by improving the quantity, quality, efficiency and consistency of formative feedback regarding patient encounters.

This project fits the IITG objectives and the needs of Upstate Medical University:

- The use of mobile technology to accomplish learning outcomes is consistent with a mobile population that seeks ways to interface anytime, anywhere – with Learning Management Systems, e-books, social media, a plethora of apps, and with each other.
- A free, easy to use observation/feedback system addressing student, patient and preceptor needs along with educational goals, HIPPA regulations and IRB concerns has applications for Upstate and other SUNY colleges that provide medical and health profession degrees.

Process: Distance Faculty Observations using the iPad/FaceTime application will improve timeliness and efficiency of feedback between preceptors and students in:

- a) two medical clerkships [Pediatrics and Family Medicine] in the College of Medicine; and
- b) the Family Nurse Practitioner (FNP) Program, Master of Science, College of Nursing; and
- c) the Physical Therapy (PT) Doctoral Program in the College of Health Professions.

Use of the iPad has been implemented in many institutions, but, to our knowledge, has not been studied with respect to the use of FaceTime for real-time feedback. This project will develop and demonstrate a method utilizing the iPad for observation and feedback. Student, faculty and patient satisfaction with this method will be examined, and the challenges and successes of the processes will be described.

Students will enter the patient room and ask the patient and/or parent for consent to observation by the distance faculty. The observation will NOT be recorded. When consent is obtained in writing, students will call on DFO faculty until one is available.* The student will return to the patient and introduce the patient and/or parent to the DF. When the encounter is complete, the DF will give feedback to the student regarding the history and physical examination skills, outside of the room in a designated area. The clinical part of the encounter will be discussed with the clinical faculty preceptor and not by the DF. Students will end the FaceTime call and proceed to be precepted by the clinical faculty preceptor. If no DF is available, the encounter will proceed as usual.

Participating patients on the Pediatric rotations will be those that are part of the faculty practice and therefore no confidentiality issues will arise. In Family Medicine, Nursing and Physical Therapy, patients may be part of another practice and consent to participate will be required. The Institutional Review Board has indicated this is a QA study, and does not require their approval. Patients will be asked (just after their examination) to complete an anonymous written form to assess their satisfaction with the process.

Students: Students in the clinical clerkships of Family Medicine and Pediatrics in Syracuse will participate in

cohorts of 20. Those iPads will be part of the in-kind contribution, as they were purchased with campus dollars for a “green course content” pilot in 2012/2013. Twelve students in the FNP program and twelve PT students will participate during the clinical portions of their respective programs. During any given term, there are 30+ students enrolled in the PT Program, and 60+ students in the FNP Program. Students enrolled in the FNP and PT programs will be randomly selected to participate in this iPad Observation project.

Each participating Nursing student will be expected to have 2 observed encounters per term. Each participating PT student will have 1-2 observed encounters in a given clinical rotation. Each medical student will be expected to have 1-2 observed encounters during their clerkships in Family Medicine and in Pediatrics (both clerkships are five weeks in length). iPads will be collected and reimaged at the end of each clerkship/term and distributed to the next cohort.

Participating Faculty: Drs. Botash, Bailey, Powers and Recker-Hughes will be the co-Principal Investigators. Additional faculty who will conduct DFO’s will be recruited by these principals. The DFO faculty will be provided with an iPad as an incentive for participation and are expected to be present at the faculty development workshops. All participating faculty will attend 2 workshops: a) one prior to pilot implementation to learn about the configuration and use of the iPad apps, and the selected forms and feedback processes, and b) one at the end of the first year to debrief on and improve the processes.

Reports and Resources

- [Project final report](#)
- [CIT 2013 presentation](#)

Assessment, Understanding, Monitoring Student Progress

- Outcomes Assessment

Faculty Development

- Organizational Models of Faculty Support

Instructional Design

- Student Learning Support