Clinical Skills at Yale: Teaching Students the Essential Elements of “Doctoring”

Many faculty members from General Internal Medicine play leadership roles in the Clinical Skills Program, a thread that spans all four years of the medical school curriculum at Yale. At many medical schools, formal clinical skills education is limited to the pre-clerkship period, but since developing solid clinical skills is foundational and developmental, the Clinical Skills Program at Yale emphasizes multidimensional training over the entire span of medical school. Jaideep Talwalkar directs the program, overseeing the individual components, and collaborating with educators across the YSM curriculum to optimize clinical skills education in other coursework, clerkships, and the post-clerkship advanced training period.

In the Clinical Skills Program at Yale, students learn to communicate with patients, families, and other members of the care team; examine patients using traditional physical exam skills and point-of-care ultrasound; develop clinical reasoning skills; and understand the important role of medical students in a patient’s care.

Clinical skills training starts early in first year. The Clinical Skills Course meets weekly during the 18-month pre-clerkship period, with students spending most of their class time engaged in hands-on practice of basic skills. The Clinical Skills Program continues through the four-year curriculum with more advanced topics during the clerkship and elective years. Countless faculty, fellows, residents, and upper-level medical students are trained each year to run small groups and workshops designed to provide students with individualized attention and feedback about their clinical skills.

Auguste Fortin runs the communication skills curriculum in which students learn how to talk to patients. A typical session involves students interviewing an actor portraying a patient, or standardized patient, using a patient-centered interviewing model, while receiving feedback from faculty, peers, and the standardized patients. Joe Donroe directs physical examination. In a series of small group sessions, students practice core elements of physical exam with faculty observation and feedback. Additional workshops provide students with more time and attention to work on particularly challenging skills (e.g., use of the ophthalmoscope). Matt Ellman runs a developmental, longitudinal end-of-life and palliative care curriculum in which students, regardless of future specialty, acquire basic comfort, knowledge, and skill in the approach to patients with life-limiting illness. Rachel Liu from Emergency Medicine runs point-of-care ultrasound (POCUS) education, with the goal of helping all students see the connection between anatomy, physiology, and physical exam with the use of portable pocket-sized ultrasound devices that connect to tablets and smartphones. A subgroup of students develops higher level ultrasound skills through elective experiences. Because POCUS is a relative new technology, Dr. Liu also trains faculty on using POCUS to build a corps of instructors.

Thilan Wijesekera and Andrés Martin are the most recent additions to the Clinical Skills leadership team. Dr. Wijesekera directs clinical reasoning education. Simply stated, clinical reasoning is “how doctors think” – the process by which physicians consider a patient’s situation to develop ideas about diagnosis and appropriate testing and treatment. Case-based discussions are used to teach students clinical reasoning while exploring biases that can impact clinical judgment. Dr. Wijesekera is exploring
novel ways to use technology and gamification to engage students in clinical reasoning workshops scattered across the four-year curriculum. Dr. Martin from the Child Study Center runs the standardized patient program through the Teaching and Learning Center and is increasing the diversity of case scenarios and actors to better reflect the greater New Haven community. Yale’s standardized patients are professional actors who can follow scripted roles, improvise as needed, and display emotional reactions indistinguishable from a real patient.

In the pre-clerkship period, students put their emerging clinical skills to use in weekly sessions with patients through the Interprofessional Longitudinal Clinical Experience (ILCE) and Medical Coach Experience (MCE). Kirsten Wilkins from Psychiatry directs the ILCE and Barry Wu directs the MCE. Dr. Wu facilitates the recruitment and training of over 200 faculty in these clinically-oriented courses that run parallel to the Clinical Skills Course. In ILCE, first year medical students learn alongside nurse practitioner and physician associate students to enhance their interprofessional education. In MCE, second year medical students work together with physician coaches to practice clinical skills and explore physician professional identity formation.

Beyond the pre-clerkship period, clinical skills are formally augmented in a variety of settings. Peter Ellis, (along with Ada Fenick from Pediatrics and Matthew Goldenberg from Psychiatry) co-directs the Biopsychosocial Approach to Health Clerkship and ensures that clinical skills are reinforced during the clerkship. For example, Susan Kashaf runs clerkship workshops on how to conduct a problem-focused visit, while other workshops focus on Office Orthopedics, Clinical Reasoning, and the mental status examination. Dr. Kashaf also directs remediation efforts to help students attain competency with their clinical skills. The Advanced Communication Skills Workshop is a more recent addition in David Rosenthal’s Capstone Course for graduating medical students. Students rotate through five stations with standardized patients in which they face potentially intensely emotional scenarios. In Capstone, students also discuss high-yield topics essential for the transition to residency such as reading electrocardiograms, ordering blood transfusions, and conducting safe end-of-shift patient hand-offs.

In addition to regular formative assessment and feedback during class sessions, students participate in two multi-station observed structured clinical examinations (OSCE) during the curriculum. As director of student assessment, Michael Green oversees the Pre-clerkship OSCE and Clerkship OSCE, working with other clinical skills team members to adjust content and scoring from year-to-year to maintain consistency with what is taught in the curriculum. The OSCEs also serve to identify students who need extra practice in clinical skills through the remediation program.

Faculty in the clinical skills leadership group are regularly recognized for their excellence and innovation in teaching. Drs. Donroe, Ellman, Fortin, Green, Kashaf, Liu, Martin, Talwalkar, Wilkins, and Wu have all received teaching awards at medical school commencement or at the national level. Dr. Wijesekera won the best educational innovation award for his clinical reasoning gamification work at the Diagnostic Error in Medicine International Conference sponsored by the Society to Improve Diagnosis in Medicine. Additionally, team members have published extensively about their work. See below for a list of notable recent publications.
The Clinical Skills Program faces ongoing challenges. Most acutely, with the move to online learning for medical students in March 2020, faculty have overhauled sessions to use Zoom to meet learning objectives related to communication skills and clinical reasoning. Plans are underway to re-engage students with physical examination, POCUS, and in-person patient contact in the safest way possible. Additionally, with clinical work taking top priority, recruitment and retention of highly skilled volunteer teachers is never-ending, especially in domains that require extensive training (such as patient-centered interviewing and point-of-care ultrasound). Thankfully, dozens of faculty members from General Internal Medicine remain involved in this capacity and play highly visible roles as teachers and role models through their work with students in Clinical Skills.

Faculty interested in getting involved or learning more about Clinical Skills teaching in person or remotely can contact Jaideep Talwalkar or any members of the teaching team mentioned above.

Selected bibliography from Yale Clinical Skills Program faculty (2016-2020):

Communication Skills

- Sanders L, Fortin AH, Schiff GD. Connecting with patients – the missing links. JAMA. 2020;323(2):33-34.

Physical Examination


Clinical Reasoning

Point of Care Ultrasound

End-of-Life & Palliative Care


Assessment


Miscellaneous


