THE BERYL INSTITUTE

PATIENT EXPERIENCE GRANT PROGRAM SERIES

RESEARCH REPORT

Medical School Focus on the Patient Experience

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Joan's Family Bill of Rights

ABOUT THE BERYL INSTITUTE PATIENT EXPERIENCE GRANT PROGRAM

The Institute's annual grant program is designed to broaden the dialogue on the value of focusing on the patient experience and to increase the volume of data-driven research supporting this critical topic. Healthcare personnel engaged in managing or improving patient experience, doctoral students and/or university faculty are encouraged to apply.

The mission of the program is to encourage and support research and inquiry on the following:

- The value of focusing on patient experience before, during and after care (e.g. access to care, quality encounters, service improvement, reduction of readmissions, ROI of service, etc.)
- The impact service efforts have on patient and family experience
- The influence of culture on the overall healthcare experience and/or performance outcomes
- An integrated review of the impact these factors have in supporting a positive healthcare experience

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SUMMARY

When Carnegie Institute released the Flexner Report in 1910, most medical schools adopted the report's recommendations, considered by many as the foundation for medical school education. Over the past two decades, the curriculum has undergone substantial changes in certain schools:

- Doctoring courses teach skills needed as a doctor, such as communication and reasoning, that are, oftentimes, not included in the traditional curriculum.
- Communication courses answered a request from the Institute of Medicine for medical schools to include communication in the curriculum.
- Recognizing that empathy may decline as students move through their education, medical schools responded with training that inspires empathy, including courses focused on the humanities.
- With the advent of specialists, hospitalists and teams of professionals caring for the patient, medical schools introduced interprofessional courses to ensure coordination and cooperation among the many care givers.
- The focus on patient centered care has spawned a number of courses with patient or family centered in the name.
- Decades ago, medical schools revolutionized education by introducing "standardized patients" into the curriculum.
- More recently, video has impacted the way in which students learn with video as a learning platform for lectures and as a feedback tool for students practicing their techniques.
- "Flipping the classroom" has been adopted by a number of schools where lectures are watched at home and high level problem solving occurs in the classroom.

This report highlights programs that have altered the traditional medical school curriculum to meet the challenges of evolving healthcare. Courses are segmented into several areas: communication, empathy, humanities, doctoring, interprofessionalism and patient centeredness, although many of the courses overlap two or more areas.

Regardless of the medical school's curriculum, the student's training in hospitals by physicians and residents, oftentimes, molds the future doctor's relationship with the patient. It's up to organizations to ensure that clinical training in their hospitals, clinics or practices embody the goal of stellar patient experience.

BACKGROUND

Recognizing the discrepancies in communication and empathy skills among my sister's doctors throughout the two weeks she spent in the intensive care unit before she died, I was curious about what hospitals teach doctors, as well as what courses are offered in medical schools centered around the patient experience. In interviewing over 20 doctors for a white paper for The Beryl Institute, I learned that communication skills courses are available for physicians who receive low communication scores from patients, courses which are sometimes mandated for insurance coverage.

I wondered what medical schools were teaching their students to enhance the patient experience. With The Beryl Institute generously providing a grant for me to research the unique courses offered by medical schools in the U.S., I set off on my exciting journey.

METHODOLOGY

The first task was to identify the accredited medical schools in the U.S. The Association of American Medical Colleges (AAMC), a non-profit which provides support for accredited schools, lists 141 medical schools in the U.S., including Puerto Rico.

My goal was to contact every school and, through a survey, identify schools and relevant courses in communication, empathy, humanities and other appropriate topics that help students enhance the patient experience.

I needed names and email addresses for my proposed survey. While the AAMC probably has the database, they did not respond to my inquiries as to whether that database did indeed exist. It was time to build my own database.

Through talking with doctors, professors and heads of the curriculum at the medical schools, I discovered Directors of Clinical Skills Courses (DOCS). As a two-year old organization, DOCS' mission is to provide its members with important information and a means to communicate. Anyone who oversees medical education or is a faculty member engaged in teaching medical students in clinical skills courses is welcome to join DOCS, which is free.

After talking with Dr. Matthew Mintz, Assistant Dean of Curriculum at George Washington University School of Medicine and President of DOCS, as well as Michelle Daniel, Assistant Professor at the Warren Alpert Medical School of Brown University and DOCS Membership Chair, I learned several interesting facts:

- A medical school's curriculum is not run by just one person, and, in fact, there could be several people in charge, including a first-year director, a second-year director and a third-year director, who frequently move from school to school.
- Medical school deans are, most likely, not familiar with all of the courses offered by the school.
- Curriculum heads will probably not respond to a survey, since they have survey fatigue, receiving several surveys a day.
- People may be reluctant to share information, wanting to hold it for academic articles, many of which appear in *Academic Medicine.*

In exchange for populating their database, DOCS sent me a list of nearly every medical school in the country. Two thirds had at least one person listed; however, there were no email addresses and only one third had telephone numbers. First, I combed the DOCS website for email addresses and then searched the internet for heads of curriculum and their email addresses. I filled in the missing schools, adding the positions and, when the position was not related to the curriculum, researched the appropriate contact for the school. Other than three medical schools in Puerto Rico, which had little information on their websites, I was able to capture an email address for someone involved with the curriculum at every medical school in the U.S. The database was growing.

In my preliminary discussions, I learned about a listserv – DR-ED, where interested medical school professors and directors post questions and where lively discussions may ensue, such as the one on how to teach percussive examinations without an expensive mannequin. Listserv owner Brian Mavis encouraged me to post my query about innovative courses in medical schools.

For several months, I monitored the listserv, accumulating additional names, titles and email addresses for my expanding database. I gathered over 200 contacts at medical schools. As agreed, I shared my database with DOCS. Through my Constant Contact account, I sent an email from DOCS Membership Chair Michelle Daniel asking recipients to join DOCS. Several people responded to the invitation and I added more names to the database, which was now ready for my query about unique courses furthering the patient experience.

The Beryl Institute kindly sent an email under their banner to my database on Tuesday, January 21, 2014 from which I received a half dozen responses. On Thursday, January 30th, I posted a request on DR-ED listserv, which was distributed to 1,962 recipients, from which I received about 10 additional responses. I also received emails from people interested in obtaining my report.

On February 14th , I posted an additional query on DR-ED, specifically about empathy courses and mentioning that for those who had contacted me about interest in the report, it would be available through The Beryl Institute. Again, I received responses from people expressing their interest. A few days later, I posted a request for information about “flipping the classroom,” a program structure mentioned by several curriculum heads, which received over 20 responses.

In the meantime, I had researched the literature, which led me to physicians, who had written about their medical school courses. I contacted them about the status and success of their programs.

Through the email responses and research, I had identified over 30 schools which offered courses in communication, humanities, empathy, interprofessionalism, patient centeredness and other relevant topics.

From Patient-Centered to Physician-Centered back to Patient-Centered Care

From the early days of the barber-surgeon, who performed bloodletting and whose barber pole represented clean and bloody bandages, to the beds in hospitals that had sprung up when the populace migrated to burgeoning cities, the patient was always the center of attention. In the early 1800s, Dr. René Laennac watched two children playing with sticks in France. They listened to one end and as the other end was scratched, they were able to hear the sound. This enabled Dr. Laennac to envision a solution to his challenge of listening to an obese woman's heart. He invented the stethoscope, which was the precursor to thousands of medical instruments that followed.

No longer was the physician an observer, but rather an examiner. Patient-centered care gradually evolved to physician-centered, where patient decisions were often made with doctors around a table viewing charts, x-rays and lab tests without the patient present or without even considering the patient's input.

The year 2001 is, oftentimes, cited as a turning point when physician-centered care began the pendulum swing back to patient-centered care. That was the year when the Institute of Medicine (IOM) released its seminal work, *Crossing the Quality Chasm: A New Health System for the 21st Century*, which defined six aims. Care should be safe, effective, patient-centered, timely, efficient and equitable.[1] And for the first time in nearly two centuries, the patients' involvement in their care was cited as prudent in enhancing outcomes, as well as the patient experience.

Brief Background of U.S. Medical Education[2]

Founded in 1765, the first medical school in North America at the University of Pennsylvania was not without its challenges. Viewed as a way to command respect from the public, which was sometimes hesitant to use physicians, as well as earn income for physicians, many of whom worked in a second profession to support themselves, medical schools became battle grounds for physicians asserting their power. Within the next century and a half, over 160 medical schools churned out 25,000 doctors. Recognizing the economics of attracting students, medical schools varied in length, curriculum and testing without substantial rigor.

Although the American Medical Association (AMA), formed in the mid-1800s, attempted to standardize medical education, it wasn't until the late 1800s, that two events changed the landscape. When Charles Eliot became president of Harvard Medical School, he expanded the length of school to three years from two and required students to pass all courses before graduating, rather than just a majority. The result was a brief decline in enrollment and revenues. Pennsylvania had tried similar changes, but caved after losing students. However, at Harvard the alterations stuck and gradually rival schools wanted to keep up. By the end of the century, nearly every medical school was three years in length.

The second event, which altered the landscape, occurred when Baltimore merchant Johns Hopkins bequeathed $7 million to build a hospital and a medical school. With a four-year program, requiring an unprecedented undergraduate degree (some medical schools didn't require a high school diploma), and a robust curriculum, including education in the hospital wards, coining the term "residency," the school quickly became the "model for medical education," as Abraham Flexner would later comment.

Recognizing the wide discrepancy in medical school rigor, the AMA began grading schools and only fully approved slightly more than half. Unwilling to publish their dismal results, the AMA decided to engage the Carnegie Foundation for the Advancement of Teaching to conduct a similar evaluation, which would later be published.

[1] www.iom.edu

[2] Starr P. The Social Transformation of American Medicine. Harper Collins Basic Books. 1982.

Abraham Flexner visited 155 medical schools in the U.S. and Canada as a representative from the Carnegie Foundation, whose name as a philanthropic leader opened all doors.

Abraham Flexner

The Flexner Report, released in 1910, laid the groundwork for standard medical curriculum. Flexner recommended:

- Closing all but the top 20 percent of medical schools
- Increasing the prerequisites to enter medical training
- Training physicians to practice in a scientific manner and engaging medical faculty in research
- Giving medical schools control of clinical instruction in hospitals
- Strengthening the state regulation of medical licensure

Let's take a look at how medical education is evolving.

Changes in Medical Education that Impact the Patient Experience

Examining the various clinical skills courses implemented across the country has revealed several overarching changes in medical education that have substantially impacted the patient experience. The digital age ushered in a dramatic change in medical education with the use of videos, which now help students assess and improve their interaction with patients, whether real or simulated.

A recent innovation is "flipping the classroom," the famous Khan Academy teaching methodology, where students learn the lessons that need to be memorized from videos at home and do the higher level problem solving in groups guided by the professors.

Stanford Medical School has flipped two total courses – biochemistry and health policy. In the endocrinology course, several topics have been flipped within the module. "Overall the reaction has been mixed," related Dr. Neil Gesundheit, Associate Dean for Advising. "Although the new format has promise, students are not always eager to watch videos on their own prior to class, the in-class exercises require a lot of work to be engaging and efficient, and the flipping requires significant faculty effort to create and staff interactive exercises. It's not easy to transform a traditional medical school curriculum to this new model, but we hope if we can get it right, that flipping will provide improved outcomes and student engagement in their medical education."[3]

At East Tennessee State University Quillen College of Medicine the reaction to flipping has been positive. The human gross anatomy course and the biochemistry course that follows have been flipped. "The students have received it well and are actually upset that the other courses are not adopting the format," commented Dr. Caroline Abercrombie, Director of the Anatomy Teaching Lab. "It is a lot of work up front, but the faculty and the students love it; the engagement and interactive sessions are rewarding for both."[4]

Although flipping is used in many medical schools in one or more classes, especially those courses heavy in lectures, the effect on the patient experience has yet to be measured.

[3] Dr. Neil Gesundheit, Associate Dean for Advising at the Stanford Medical School in an email to Barbara Lewis on February 21, 2014.
[4] Dr. Caroline Abercrombie, Director, Anatomy Teaching Lab the Department of Biomedical Sciences at Quillen College of Medicine East Tennessee State University, email to Barbara Lewis on February 19, 2014.

One of the most impactful changes was the use of standardized patients, also known as simulated patients or sample patients, where actors or real patients are used in mock examinations. Implemented at the University of Southern California in the 1960s, the practice became common by the 1990s. By 2005, standardized patients were included on the United States Medical Licensing Examination (USMLE) Step 2 Clinical Skills exam.[5]

Not only are standardized patients used in medical schools, but they are also used to improve communication skills of practicing physicians in hospitals. "If a physician doesn't communicate well, then the rest of the patient experience suffers," commented Dr. Calvin Chou, a professor at the University of California, San Francisco, and faculty at the American Academy on Communication in Healthcare (AACH) where he's been facilitating communication skills training for physicians since 1999. He pointed to a body of evidence that supports better communication skills correlated with increased patient-centered care. Dr. Chou went on to describe physicians' reactions to this type of training. "Physicians seem to hang on every word from standardized patients…it's like gold, because they never hear feedback from real patients."[6]

Testing Communication Skills

IOM's *Crossing the Quality Chasm* highlighted patient-centered care as one of six major aims and that care can only be achieved by communicating with the patient.[7] Three years later, the IOM released a report emphasizing that communication skill courses in medical schools should be the highest priority.[8]

That same year in June 2004, the National Board for Medical Education (NBME) required clinical skills examination to test communication competency. Communication is now one of six required competencies identified by the Accreditation Council on Graduate Medical Education (ACGME).[9]

Communication skill is further underscored by the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS), a nationally standardized survey to measure how patients perceive their hospital care. Developed by the Centers for Medicare and Medicaid Services (CMS) and the Agency for Healthcare Research Quality (AHRQ), the survey has two dimensions related to communication.

Research reflects that effective communication increases patient satisfaction, promotes patients' self-management, enhances health outcomes, decreases the risk of medical malpractice litigation and improves physicians' time management.[10]

Let's examine some communication courses in medical schools.

[5] http://ome.stanford.edu/spp/
[6] Wolf J, Lewis B. Voices of Physician Practices and Medical Groups: Exploring the State of Patient Experiences. The Beryl Institute. October 2013
[7] www.iom.edu
[8] Losh D, Mauksch L, Arnold R, et al. Teaching Inpatient Communication Skills to Medical Students: An Innovation Strategy. Academic Medicine. February 2005; 80-2: 118-124.
[9] Losh D, Mauksch L, Arnold R, et al. Teaching Inpatient Communication Skills to Medical Students: An Innovation Strategy. Academic Medicine. February 2005; 80-2: 118-124.
[10] Mauksch L, Farber S, Greer HT. Academic Medicine. June 2013; 88-6: 843-851.

Teaching Communication Skills

The majority of medical schools report that they offer communication training,[11] usually during the first two years. However, in the second two years, communication training, oftentimes, wanes.[12]

The solution has been training that is longitudinal (over one to four years) where communication is taught in more than one course.

College System at the University of Washington Medical School

The University of Washington Medical School uses what they describe as the "College" system, which assigns each student to a College mentor, who is responsible for teaching communication skills, physical diagnosis and professionalism and who also serves as the student's mentor through the four years of medical school. Since starting in 2001, the Colleges have grown to 37 mentors and about 220 medical students in each year. All of the College mentors teach similar material with well-defined learning goals for students.

Communication training starts in year one as volunteer faculty and College mentors teach communication skills, patient centered care and professionalism in the required course, Introduction to Clinical Medicine (ICM) I. Communication training, including introductions to advanced and special communication skills, is also an important part of the curriculum of the required ICM II course in the second year. At the beginning of the ICM II course, the College mentors re-introduce good communication skills to second-year medical students, who practice the communication skills illustrated in a video during interviews with patients in area hospitals. The mentors reinforce the communication skills as each student does six observed patient interviews and physical examinations during the second-year ICM II course. More advanced patient-centered communication skills are taught in various required third and fourth-year clinical rotations, such as family medicine, psychiatry and chronic care. The communication benchmarks established by the Colleges serve as standards that are tested during the second-year and senior-year objective structured clinical examinations.

"The University of Washington students consistently score above the national mean in communication skills on the National Board of Medical Education Step 2 Clinical Skills exam," said Dr. David Losh, Professor at the University of Washington Department of Family Medicine. "We feel that these results are, in part, due to the teaching methods and the consistent introduction and reinforcement of communication skills. We have surveyed the patients who have participated as subjects for our student interviews and they tend to have a very positive reaction to the experience."[13]

Similar methods of teaching communication skills are being implemented as the University of Washington develops affiliated teaching programs in five states including Washington, Wyoming, Alaska, Montana and Idaho.

POVE Developed by the University of Washington School of Medicine[14]

In an effort to further enhance communication training, the University of Washington School of Medicine also created the Paired Observation and Video Editing (POVE) course for fourth-year students as an advanced communication elective. POVE was disseminated and evaluated at seven medical schools between 2007 and 2009.

The course focuses on peer learning, practice with real patients and direct observation using video technology. On quantitative and qualitative surveys, the students indicated that the elective was better than most medical schools' clerkships. The students also indicated that their self-confidence and time management skills improved significantly. The most valued course components were video review, repeated practice with real patients and peer observation.

[11] Losh D, Mauksch L, Arnold R, et al. Teaching Inpatient Communication Skills to Medical Students: An Innovation Strategy. Academic Medicine. February 2005; 80-2: 118-124.
[12] Mauksch L, Farber S, Greer HT. Academic Medicine. June 2013; 88-6: 843-851.
[13] Dr. David Losh, Professor of Professor at the Department of Family Medicine at the University of Washington Medical School in email to Barbara Lewis on February 20, 2014.
[14] Mauksch L, Farber S, Greer HT. Academic Medicine. June 2013; 88-6: 843-851.

DocCom Program at Drexel University College of Medicine[15]

The DocCom program offers interactive web-based learning modules using videos and text to teach clinical communication skills. Launched as a joint effort between Drexel University College of Medicine and the American Academy on Communication in Healthcare (AACH) in 2004, DocCom was developed by leaders in the field from over 30 schools of medicine. DocCom's multi-media features engage and stimulate both faculty and learners. Each of DocCom's learning modules presents key principles, evidence-based recommendations and a behavior skills checklist.

DocCom includes more than 400 videos. Authors demonstrate interactional skills in encounters with standardized patients and provide video and text commentary on them. Additional video vignettes serve as triggers for discussion. Interactive elements include assessment questions and feedback capability. Approximately 80 programs including 30 medical schools subscribe to DocCom allowing their students and residents to access the educational videos.

Risk Talk Workshop at Tufts University School of Medicine[16]

Tufts University School of Medicine piloted a curriculum in 2013 that was developed to teach students risk communication – information about the probability of future outcomes, whether negative or positive. The workshop consisted of two areas of content: theoretical knowledge involving the role of risk communication and the challenges, and practical skills, which included scripts to facilitate learning.

Second-year students, who were either exposed or unexposed to the workshop, were tested on their risk communication competence using objective observations by standardized patients and faculty, and subjective observations, which were self-reported.

The results of the research indicated that the workshop was efficacious, although the researchers point to curriculum delivery and competence measurement as challenges in implementing the program.

Clinical Medicine Curriculum at the Albert Einstein College of Medicine

Dr. Felise Milan, Director of Introduction to Clinical Medicine Programs at Albert Einstein College of Medicine, described their very large two-year program. "Clinical medicine teaches students the skills of medical interviewing, including rapport building. Students learn and get to practice the skills of empathy and patient-centered care by interviewing real patients and standardized patients. They are assessed both in class with videotape and in the wards and given ongoing feedback."

Three required courses comprise the curriculum: Introduction to the Patient and Introduction to the Clinical Experience for first-year students, and the Clinical Examination for second-year students. When asked about the students' feedback, Dr. Milan responded, "We are always tweaking certain sessions based on student feedback, but overall feedback is very, very positive."[17]

Art and Practice of Medicine at Oakland University William Beaumont School of Medicine

When the William Beaumont School of Medicine opened in 2011, the Art and Practice of Medicine was a required, longitudinal course for first and second-year students, designed to combine science and doctoring skills and to encourage students to think about how to integrate various knowledge bases early in their training.

Students are taught and required to practice physical exam and patient communication techniques. Throughout every topic of the course, students are allowed hands on learning. The response from students has been, "overwhelmingly positive," according to Maurice Kavanagh, Director of the Clinical Skills Training and Simulation Center.[18]

[15] www.doccom.aachonline.org
[16] Han P, Joekes K, Elwyn G, Mazor K, Thomsaon R, Sedgwich P, Ibison J, Wong J. Patient Education and Counseling. 2014; 94: 43-49
[17] Dr. Felise Milan, Director of Introduction to Clinical Medicine Programs at Albert Einstein College of Medicine email to Barbara Lewis on January 21, 2014.
[18] Maurice Kavanagh, Director of the Clinical Skills Training and Simulation Center at the Oakland University William Beaumont School of Medicine email to Barbara Lewis on February 10, 2014.

Empathy Courses Aim to Reverse the Purported Erosion

According to research, physician empathy leads to improved patient satisfaction, greater adherence to therapy, better clinical outcomes and lower malpractice liability.[19] Some research reflects that empathy declines during medical school and residency, although the results have been challenged.[20] In an effort to measure empathy, several scales are used, including:

- Jefferson Scale of Physical Empathy (JSPE)
- Balanced Emotional Empathy Scale (BEES)
- Interpersonal Reactivity Index
- Empathy Construct Rating Scale (ECRS)

In a recent review of medical education literature, researchers identified several types of interventions that increase empathy scores. These interventions included the patient narrative and creative arts, writing, drama, communication skills training, problem-based learning, interpersonal skills, patient interviews, exponential learning and empathy.[21]

Students in Hospital Beds Projects

When doctors, who became patients, were interviewed for a research study, several recommended that medical students should be admitted to hospitals as inpatients to experience the patient's perspective, suggesting that this could increase the students' empathy.[22]

In fact, UCLA School of Medicine experimented with the concept in 2002 when nine students near the end of their second year of study, who had never been overnight in a hospital before, were admitted presenting with various fake symptoms including dehydration, back pain and loss of consciousness. The only people who knew about the experiment were the Director of Hospital Admissions, the Director of Nursing and the attending physician, all of whom kept the information to themselves, except one doctor.[23]

After 24 hours in the hospital over a Saturday night when resources were least needed, the "mystery shoppers" were discharged with a lot on their minds, which they shared with the entire class at a later date. "The hospitalized students reported, both in anonymous written questionnaires and oral presentations, that their attitudes and knowledge about hospitalization were significantly changed in a manner which gives them confidence that they will be far more empathetic to patients than they might otherwise have been."[24]

Eventually about 30 or 40 students participated. Despite its value, the program was discontinued due to the cost of hospitalization and risk management concerns over the safety of being in a hospital setting.[25]

According to Dr. Tyler Cymet, Associate Vice President for Medical Education at the American Association of Colleges of Osteopathic Medicine, "There is a lot of work on the topic going on in osteopathic medical schools," regarding students in hospital beds.

At the University of New England College of Osteopathic Medicine, students are "admitted" into a nursing home bed to live the life of an elder nursing home resident for two weeks for 24 hours 7 days a week. Launched in 2006, the program has expanded to four states. Students keep a journal detailing their experiences.

According to Dr. Marilyn Gugliucci, Professor & Director of Geriatrics Education and Research, "Students have stated that this experiential learning project provided life altering medical education. Longitudinal data reveals that students maintain patient-centered attitudes and skills, such as the use of eye contact, touch, body position and voice cadence with patients of all ages. Barriers to working with older adults are decreased by walking in an older person's shoes."

[19] Blatt-Rawden S, Chisolm M, Andon B, Flickinger T. Academic Medicine. August 2013; 88-8: 1171-1177.
[20] Blatt-Rawden S, Chisolm M, Andon B, Flickinger T. Academic Medicine. August 2013; 88-8: 1171-1177.
[21] Blatt-Rawden S, Chisolm M, Andon B, Flickinger T. Academic Medicine. August 2013; 88-8: 1171-1177.
[22] Kliztman R. Academic Medicine. May 2006; 81-5: 447-453.
[23] Wilkes M, Milgrom E, Hoffman J. Medical Education; 2002: 528-533.
[24] Wilkes M, Milgrom E, Hoffman J. Medical Education; 2002: 528-533.
[25] Dr. Michael Wilkes, Founder and Creator of Doctoring at the University of California, in a conversation with Barbara Lewis on February 18, 2014 via Skype.

Educators-4-CARE at Stanford School of Medicine

In 2008, Stanford School of Medicine launched a unique learning community of 17 faculty members whose goal is to enhance the development of medical students as skilled and compassionate physicians. The Educators-4-CARE (E4C) Program provides a formal curriculum to help foster the development of core values including compassion, advocacy, responsibility and empathy – from the beginning and throughout medical school.

The program, which was started to provide continuity and support for the students, teaches clinical skills such as the medical interview, physical exam, clinical reasoning, presenting, write-ups, etc. During the students' clinical years the faculty meets every other month with the students in small groups doing critical reflection on their experiences on their clerkships.

Students are matched with an E4C faculty, who serves as a teacher, mentor and colleague for the duration of the student's time at the School of Medicine. Each Educator-4-CARE teaches and guides five to six students per class year in their personal and professional development.

"Students have given very positive evaluations of our program since they get a dedicated faculty mentor whom they can trust and count on," commented Dr. Lars Osterberg, Director of E4C. "We serve as a real support for our students during the stressful time of medical school. Each year our students have done increasingly better on their clinical performance examinations and we are now one of the top schools in our consortium."[26]

HEART and Medals4 Mettle Programs at the University of Louisville School of Medicine

Dr. Pradip Patel, Chairman of HEART Humanism in Medicine, described why he and three members of the Dean's staff at the School of Medicine administrators started the HEART program in 2007. "Recognizing that, at times, a disconnect occurs between what we aspire to do for our patients as providers and what ends up transpiring in each patient contact, the HEART group was created and charged with a mission to close the gap." HEART is an acronym for Humanistic, Empathetic, Altruistic, Relationship-centered Team.

Through the various HEART projects, the goal is to foster a medical community culture that embraces the humanistic component of the physician-patient interaction.

One program is Heart to Heart (HtH) a student-led initiative that bring students and faculty together for one-hour sessions to discuss topics in ethics and humanism in medicine. According to Dr. Patel, "These topics, while relevant to physicians, were underrepresented in the formal curriculum."

Another innovative program, Medals4Mettle (M4M), is a nonprofit organization founded in 2005 by Indiana surgeon, Steven Isenberg, who presented his marathon medal to a hospitalized colleague, who was battling cancer. The goal of Medals4Mettle is to gift medals to patients with serious illnesses. With over 60 chapters worldwide, an estimated 40,000 medals have been distributed.

The Kentucky Chapter at the University of Louisville School of Medicine takes M4M one step further. After signing up for the Kentucky Derby Marathon or mini-marathon, medical students are matched with their "running buddies," who are patients at the University of Louisville Pediatric Cancer and Blood Disorders Clinic. Throughout the months of training for the marathon, students meet the patient and the family, and/or connect via email or phone. The goals are to learn more about the children and the illnesses they are dealing with, as well as how the families and patients are coping.

"By being exposed to experiences that emphasize physician-patient relationships early on in medical training," continued Dr. Patel, "students are more likely to realize the importance of this relationship and carry it with them well into their years of practice."[27]

Becoming a Doctor at Emory University School of Medicine

Focusing on the patient-doctor relationship, the Becoming a Doctor course at Emory University School of Medicine is a requisite, longitudinal four-year program that encompasses clinical skills, evidence-based medicine, ethics, cultural competency and other topics essential to become a competent, caring physician. Becoming a

[26] Dr. Lars Osterberg, Director of Educators for CARE at Stanford University email to Barbara Lewis on February 15, 2014.
[27] Dr. Pradip Patel, Chairman of HEART Humanism in Medicine at the University of Louisville School of Medicine in an email to Barbara Lewis, January 30, 2014.

Doctor was started when Emory revamped its curriculum in 2007 from the traditional structure of two years of basic science courses prior to embarking on clinical rotations, to a new organ-based curriculum in the first two years that is bolstered by later clinical experience.

"By engaging students with small group sessions led by their Society advisors and through interactions with standardized patients, Becoming a Doctor helps students learn medical decision-making and how to empathically approach patients with organ-based issues. In this way, we bring together basic science and the bedside," said Dr. Lisa Bernstein, Director of the Becoming a Doctor Curriculum. "The student feedback has been extremely positive."[28]

Emory also sends its students into physician's private practices for one afternoon every other week during their first year. This Outpatient Experience (OPEX) allows students to practice the patient-centered history-taking and physical examination skills taught in Becoming a Doctor with real patients earlier than allowed in most medical schools. "This way, from early on in their training, students are able to see the importance of thoroughly obtaining data and engendering patient trust to help lead them to make the right diagnosis and ultimately help those in their care."[29]

Mind-Body Medicine Skills Course at Georgetown University School of Medicine

Several medical schools in the U.S. and in Germany have adopted a unique course, which was started by Georgetown University School of Medicine in 2002. The Mind Body Medicine Skills course is an elective for first-year students that blends science and humanism by fostering students' awareness and self-care. The course stems from a motivation to promote altruism and humanism, so that later, as doctors, they know how to handle physical exhaustion and mental fatigue that may affect their interactions with patients.

Humanities Courses Take Center Stage

In her insightful article, *The Synergy of Medicine and Art in the Curriculum*,[30] fourth-year Harvard Medical School student Samyukta Mullangi made a strong case for incorporating visual arts, literature, music and other arts into curricula as a lifelong tool to reorient students as they move through their medical training.

Citing fellow students, who became increasingly hard-hearted and less able to understand the patient's perspective, the author recommended that medical schools adopt humanities courses as a way to improve the students' observation and listening skills.

Here are a few programs that have done just that.

Healer's Art at the University of California at San Francisco School of Medicine

The Healer's Art is a 15-hour course for medical students, developed by Dr. Rachel Naomui Remen, Clinical Professor of Family and Community Medicine at UCSF School of Medicine, and offered annually at UCSF since 1991. This innovative course is designed to strengthen and evolve the professional values of the Hippocratic Oath. The course empowers students through mindfulness to recognize the meaning in their daily work and strengthen their professional commitment. Tools taught include generous listening, mindfulness, journaling, reflection and contemplation, leading to the formation of a genuine service community among students and faculty.

Faculty at 82 medical schools, which represent more than 50 percent of U.S. medical schools and additional schools in 9 countries abroad, have been trained to teach the course and offer it to their students annually. Each year more than 1,800 students take the course. Uniform evaluations are used at all schools and research on outcomes has been published in several peer reviewed medical and educational journals.[31]

[28] Dr. Lisa Bernstein, Director of Becoming a Doctor Curriculum, at Emory University School of Medicine in a conversation with Barbara Lewis on January 21, 2014.
[29] Dr. Lisa Bernstein, Director of Becoming a Doctor Curriculum, at Emory University School of Medicine in a conversation with Barbara Lewis on January 21, 2014.
[30] Mullangi S. Academic Medicine. July 2013; 88-7: 921-923.
[31] Dr. Rachel Naomui Remen, Clinical Professor of Family and Community Medicine at UCSF School of Medicine in an email to Barbara Lewis on February 20, 2014.

The Center for Educational Development and Research at the David Geffen School of Medicine at UCLA[32]

Recognizing that art can help us see the world in different ways, including a way to understand those with illness, the Center for Educational Development and Research at the David Geffen School of Medicine at UCLA sponsors a rotating series of art exhibits. The goal is to help students relate to the patient.

Launched in 2010, exhibits have included My Days of Losing Words, Scarred for Life, Artist-Patient, You Have… Cancer and several others, each depicting the patient's personal story of pain and healing. Students are not required to attend, but about 30 show up for each exhibit's opening to meet the artist.

Narrative Medicine Seminar Series at Columbia

For over a decade, the Narrative Medicine Seminar Series at Columbia has been a required six-week seminar in the spring of the first year. Students can choose among 12 graduate-level seminars in writing, reading, visual arts, music and narrative ethics. Some students go to the Metropolitan Museum of Art or the Museum of Modern Art for their seminars, which encourage student learning in the disciplines of literary studies, creative writing and visual appreciation of artwork.

In a study designed to explore if reflective writing improved empathy among practicing physicians, results released in 2012 suggest that a guided narrative and reflective writing program may enhance empathy of practicing physicians.[33]

Doctoring Course at UCLA Spawned Many Followers

Over 20 years ago, the UCLA School of Medicine, embarked on a bold curriculum initiative to implement a comprehensive, four-year longitudinal doctoring program that would complement the traditional courses. Like many other medical schools, UCLA taught large amounts of factual scientific information that was disease specific.

As a resident and fellow, Dr. Michael Wilkes complained about the medical education, pointing out that the infamous "hidden curriculum" was the basis for many of the disturbing attitude changes seen as the students became residents. He observed that students came into medical school bright eyed and socially committed; however, over the course of a harsh medical school experience they became rigid, less skeptical, more certain and less able to communicate with a lay person as they moved through their training.[34]

Dr. Wilkes believed that doctors in training needed to acquire a new and different skill set in order to be prepared to engage appropriately with patients, families and communities. Students needed time, mentoring and skills to reflect on the training process and their reactions. Thus, the doctoring course includes content, as well as training in essential communication and reasoning skills – areas that the traditional curriculum ignored.[35]

In a 2013 *Academic Medicine* article, The Next Generation of Doctoring, Dr. Wilkes and three colleagues dissect the Doctoring course, highlighting critical qualities of success:

- Faculty support allowing students to leave clerkships to attend the Doctoring course, especially in the fourth year
- Student support, particularly from students admitted to medical school because of their ability to learn large amounts of facts and whose introduction to softer skill sets may be disconcerting

[32] http://www.medsch.ucla.edu/LRCGallery/
[33] Misra-Hebert A, Issacson JH, Kohn M, Hull A, Hojat M, Papp K. Calabrese L. Improving Empathy of Physicians, International Journal of Medical Education. 2012;3:71-77
[34] Dr. Michael Wilkes, Founder and Creator of Doctoring at the University of California, in an email to Barbara Lewis on February 22, 2014.
[35] Dr. Michael Wilkes, Founder and Creator of Doctoring at the University of California, in an email to Barbara Lewis on February 22, 2014.

- Student selection
- Integration of the doctoring course in the entire curriculum
- Use of standardized patients
- Faculty incentives to participate in the program.[36]

Doctoring has won many national awards for innovation and interprofessional education[37] – before becoming a popular course. A quick Google search revealed that at least 45 medical schools have a course with a similar name.

On Doctoring at Geisel School of Medicine at Dartmouth

About the same time that Dr. Wilkes was devising a new curriculum at UCLA, Dr. Nan Cochran moved to Dartmouth and was surprised to learn that there was no communication skills courses taught at the medical school. After attending conferences sponsored by the American Academy on Physician and Patient (now called the American Academy on Communication in Healthcare), she began teaching a brief course in 1990. This has evolved into the On Doctoring course, a required two-year longitudinal course taught weekly in small groups, with community teacher visits every other week. In year one, students learn the medical interview, basic communication skills, normal physical exam, how to do clinical write-ups and oral presentations, motivational interviewing, and how to communicate risks and benefits to patients. In addition, the course focuses on the importance of the doctor-patient relationship, the psychology of illness, clinical reasoning and professionalism. Students are asked to write up reflections on all their doctor-patient encounters.

In year two, additional topics include the abnormal physical exam, more challenging interviewing skills, such as working with LGBT patients, doing cross cultural interviewing and working with patients, who are challenged by health literacy, as well as presenting orally and engaging in clinical reasoning, which have a larger focus.

Art of Doctoring at the University of California at Irvine School of Medicine

The goals of the Art of Doctoring are to develop self-awareness in the service of patient care, enhance the physician-patient relationship and expand students' communication skills, highlight the importance of intraprofessional team relationships and provide strategies to promote compassion and empathy as core physician values.

Dr. Johanna Shapiro, Director of the Art of Doctoring program, described why the course was started. "It was the perception among founding faculty that we enjoined students to be more humanistic, more compassionate and more connected with patients, but gave them few skills on how to do so."[38]

Started in 2003, the elective course for fourth-year students, typically, enrolls about one third of the class.

"Students are extremely positive about this course," continued Dr. Shapiro. "In addition to very high numerical scores, students often comment that the course should be required for all medical students, and that they would be eager to take a similar course in residency."[39]

[36] Wilkes M, Hoffman J, Slavin S, Usatine R. Academic Medicine. April 2013; 88-4: 438-441.
[37] Dr. Michael Wilkes, Founder and Creator of Doctoring at the University of California, in an email to Barbara Lewis on February 22, 2014.
[38] Dr. Johanna Shapiro, Director of the Art of Doctoring at the University of California at Irvine School of Medicine in an email to Barbara Lewis on February 20, 2014.

Patient/Family Centered Programs

A number of courses include patient or family centered in their titles. Here are a few of those courses.

Family Centered Experience Program at the University of Michigan Medical School[40]

Now in its tenth year, the Family Centered Experience (FCE) program is a unique course that is required at the University of Michigan Medical School. First and second-year students engage in understanding the personal side of medicine through meetings with patients and their families, who volunteer to participate. In the role of mentor, volunteer families teach students how to see the patient as a whole person and how illness affects all aspects of their daily lives, beyond just the diagnosis of their disease. In between visits, students meet with their peers and their faculty advisor in small group discussions to talk about what they have learned.

"By keeping the students in touch with why they went into medicine in the first place through the FCE, their approaches to patients are actually more human and more relevant," wrote Dr. Arno Kumagai, the Director of Family Centered Experience on their web page.

The Patient Centered Medical Home Practicum at Louisiana State University School of Medicine

Started in 2012, the Patient Centered Medical Home care management program is a part of the required clinical practicum for nursing, pharmacy and social work students, and an elective for medical students in their second year. In addition to building interprofessional skills, the course objectives include communicating with patients, families and communities; setting goals with the patient; assessing healthcare needs and readiness to changes; and measuring literacy levels.

"The students value the course," commented Dr. Mary Coleman, Director of Community Health. Medical student interest as an elective has steadily increased since beginning the course. One student told the dean that the best experience she has had thus far in medical school was her experience in this course."[41]

Patient-Centered Medicine and the Art and Practice of Medicine at Commonwealth Medical College

Commonwealth Medical College has two sequential, required courses. Patient-Centered Medicine (PCM) is for first-year students and the Art and Practice of Medicine (APM) for second-year students. Both are one year in length. PCM, which started in 2011, provides students with the opportunity to identify, acquire, and/ or refine the knowledge, skills, attitudes and behaviors required to become a patient-centered physician. Along with three week-long community immersion experiences that include visits with patient volunteers, modules in this course include implicit bias, the concept of privilege and ethics sessions meant to identify what the faculty call Patient-Centered Values.

The APM course, which started in 2010, helps the student address the complexity of people's lives when faced with healthcare challenges through three week- long community immersions with patient volunteer visits, standardized patients, objective structured clinical exams (OSCEs), online content and group discussions.

"Overall the response is positive," revealed Dr. Meaghan Godwin, Assistant Professor of Family Medicine in Ethics, Transformative Learning and Human Development.[42]

Masters Colloquium at the Paul L. Foster School of Medicine

When the Paul L. Foster School of Medicine at Texas Tech University Health Sciences Center enrolled its first students in 2009, the Masters Colloquium was part of the core curriculum "for the express purpose of improving the patient experience," according to Dr. Gordon Woods, Associate Professor of Medicine and College Master.

The required two-year course, which consists of a weekly, two-hour discussion on a topic related to bioethics, communication, empathy, the arts in medicine, health policy and controversies in healthcare, is facilitated by eight College Masters, who are senior faculty members selected by the Department of Medical Education. Students write two reflective essays every semester on personal experiences or controversies in medicine.

[40] http://www.med.umich.edu/lrc/fce/index.html
[41] Dr. Mary Coleman, Director of Community Health at LSUHSC in an email to Barbara Lewis on January 31, 2014.
[42] Dr. Meaghan Godwin, Assistant Professor of Family Medicine in Ethics, Transformative Learning and Human Development at Commonwealth Medical College in an email to Barbara Lewis on January 31, 2014.

"Overall, the Masters Colloquium has been well received by the students," continued Dr. Woods, "and consistently receives high ratings on student evaluations."[43]

Interprofessional Courses

Popping up in the arena of medical education is interprofessional courses, which promote collaboration among professional disciplines, increasingly important as patients are cared for by many types of professionals, who need to work as a team.

Health Mentor Program at Jefferson Medical School/ Thomas Jefferson University

The Health Mentors Program (HMP) at Thomas Jefferson University is a required longitudinal interprofessional education (IPE) curriculum designed to increase health profession students' competencies in interprofessionalism and collaborative practice. IPE is widely advocated as a key element to promote an effective, redesigned healthcare system and as a way to better prepare graduates to work as effective members of healthcare teams. Implemented in 2007, HMP's curriculum was rooted in the new vision of healthcare delivery proposed by Healthy People 2020, the Institute of Medicine, the World Health Organization and the Joint Principles of the Patient-Centered Medical Home and is now addressing the specific core competencies for collaborative practice laid out by the Interprofessional Education Collaborative (IPEC) report from 2011.[44]

There are three overarching HMP goals: students learn and value the roles and contributions of various members of the interprofessional healthcare team; students learn about the perspective of the patient and value patient-centered care; and students appreciate how a person's health conditions and impairments interact with personal and environmental factors.

The HMP curriculum is required for all first and second-year medical, nursing, physical therapy, occupational therapy, pharmacy, and couples and family therapy students. The program consists of four key modules:

- Obtaining a comprehensive life and health history
- Preparing an interprofessional wellness plan
- Assessing patient safety in the home
- Learning ways to promote healthy behavior and self-management support

The HMP modules are embedded in 22 courses over a two-year period.

"To our knowledge, the HMP is the largest IPE curriculum in the country," stated Dr. Lauren Collins, Director of the Health Mentors Program. "The course evaluation and feedback is extremely positive with many new IPE student leaders and champions, who leave Jefferson feeling better prepared to provide person-centered collaborative practice."[45]

[43] Dr. Gordon Woods, Associate Professor of Medicine and College Master Paul L. Foster School of Medicine at Texas Tech University Health Sciences Center in an email to Barbara Lewis on January 21, 2014.
[44] Lauren Collins, Director of the Health Mentors Program at Jefferson Medical College/Thomas Jefferson University in an email to Barbara Lewis on February 20, 2014.
[45] Lauren Collins, Director of the Health Mentors Program at Jefferson Medical College/Thomas Jefferson University in an email to Barbara Lewis on February 20, 2014.

Medical Schools' Three Curricula

Academic healthcare personnel, generally, agree that there are three types of curriculum in medical schools:

- Standard curriculum, which is in the handbook and which is required by most academic accrediting groups
- Informal curriculum, which occurs when the students work with doctors in hospitals and clinics; and the curriculum varies depending on the teacher and the patients who present
- Hidden curriculum where students watch and mimic residents and doctors as they interact with each other, nurses and patients – often without the observed even being aware they are teaching important social lessons[46]

Unless the hidden curriculum, which has been written about extensively in the literature, supports the standard and informal teachings, future doctors won't have the humanistic qualities that enhance the patient experience. It's up to every hospital to ensure that physicians and residents, who mentor students, reflect the most empathetic and humanistic qualities.

Conclusion

A wide range of courses and techniques has been incorporated in medical school education to respond to evolving healthcare. However, students' educational foundations may be thwarted as they work with residents and doctors, whose personalities conflict with the qualities that enhance the patient experience.

No matter what students learn in medical school, their training should be supported, nurtured and encouraged by physicians and residents whose behavior, which the students model, is the capstone of learning that will heavily influence their future as doctors interacting with patients.

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[46] Dr. Michael Wilkes, Founder and Creator of Doctoring at the University of California, in a conversation with Barbara Lewis on February 18, 2014 via Skype.

	School	Program	Type	Start	Required?	Length	Longitudinal?
1	Albert Einstein College of Medicine of Yeshiva University	Introduction to the Patient	Communication	1994	Yes	1 year	No
2	Albert Einstein College of Medicine of Yeshiva University	Introduction to the Clinical Experience	Communication	1994	Yes	1 year	No
3	Albert Einstein College of Medicine of Yeshiva University	The Clinical Examination	Communication	1994	Yes	1 year	No
4	Columbia University	Narrative Medicine Seminar Series	Humanities	2005	Yes	6 weeks	No
5	Commonwealth Medical College	Patient Centered Medicine	Patient Centered	2011	Yes	1 year	Yes
6	Commonwealth Medical College	Art and Practice of Medicine	Humanities	2010	Yes	2 year	Yes
7	David Geffen School of Medicine at UCLA	Doctoring	Doctoring	1990	Yes	4 years	Yes
8	David Geffen School of Medicine at UCLA	Art Exhibits	Humanities	2010	No		No
9	Drexel University College of Medicine	DocCom	Communication	2004	Yes		Yes
10	Emory University School of Medicine	Becoming a Doctor Curriculum	Communication	2007	Yes	4 years	Yes
11	Geisel School of Medicine at Dartmouth	On Doctoring	Doctoring	1990	Yes	2 years	Yes
12	Georgetown University School of Medicine	Mind Body Medicine Skills	Empathy	2002	No	1 semester	No
13	Jefferson Medical College/Thomas Jefferson University	Health Mentors	Communication	2007	Yes	2 years	Yes
14	Louisiana State University	Patient Centered Medical Home Practicum	Patient Centered	2012	No	16 weeks	No
15	Oakland University William Beaumont School of Medicine	Art and Practice of Medicine	Communication	2011	Yes	2 years	Yes
16	Paul L. Foster School of Medicine	Masters Colloquium	Patient Centered	2009	Yes	2 years	Yes
17	Stanford School of Medicine	Educators-4-CARE	Empathy	2008	Yes	4 years	Yes
18	Tufts University School of Medicine	Risk Talk Workshop	Communication	2013	No		No

	School	Program	Type	Start	Required?	Length	Longitudinal?
19	University of California San Francisco School of Medicine	Healer's Art	Humanities	1991	No	15 hours	No
20	University of California Irvine School of Medicine	Art of Doctoring	Doctoring	2003	No	1 semester	No
21	University of Louisville School of Medicine	HEART-to-Heart	Empathy	2011	No		No
22	University of Louisville School of Medicine	Medals4Mettle	Empathy	2009	No		No
23	University of Michigan Medical School	Family Centered Experience	Patient Centered	2004	Yes	2 years	Yes
24	University of New England College of Osteopathic Medicine	Students in Hospital Beds	Empathy	2006	No	2 weeks	No
25	University of Washington School of Medicine	College System	Communication	2005	Yes	4 years	Yes
26	University of Washington School of Medicine	Paired Observation and Video Editing	Communication	2007	No	1 semester	No

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