

How EHRs, telemedicine slash barriers to team learning in med ed

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The roadblocks to implementing interprofessional education programs in medical education are numerous, but not insurmountable. During a recent AMA Innovations in Medical Education Webinar, “Interprofessional Education: Using Technology to Teach Team-Based Care,” faculty members from three medical schools showcased the methods their institutions are using to implement successful interprofessional programs.

Overcoming distance barriers

Once per semester, the seven colleges and two institutes dedicated to training health professionals within the University of Nebraska Medical Center (UNMC) meet for an “IPE Day.” That day offers students from across the health care-trainee spectrum the opportunity to collaborate and learn from each other.

As students advance in their clinical training, schedule and geography limitations—UNMC has a satellite campus in Scottsbluff, 500 miles from its Omaha base—have proven to be a hindrance on that collaboration. In an effort to extend that curriculum into the clinical setting, the institution created the Interprofessional Education to Interprofessional Practice Project (IPE to IPP). The program is looking to technology to foster remote learning experiences.

The formation of IPE to IPP—in tandem with the construction of UNMC’s Interprofessional Experiential Center for Enduring Learning—has created collaborative mediums for cross-discipline learning. One such product is two 40-foot interactive walls that allow students in Omaha and Scottsbluff to collaborate in real-time despite being on opposite ends of the state.

“The trick is that technology can help us to make education more efficient,” said Kelly J. Caverzagie, MD, associate dean for educational strategy and vice-president for education at the University of

Nebraska College of Medicine. “I would argue that interprofessional education, we already actually do effectively in our day-to-day clinical work. How do we make that more efficient to where we use technology to help us advance beyond the need for standardized patients to overcome the time and distance barriers that exists?”

Telemedicine as a tool for IPE

Since 2006, students from nine health professions at the University of North Dakota School of Medicine and Health Sciences have taken a five-week interprofessional health care course. That course, combined with the eight interprofessional learning communities in which students participate throughout their training, works as a baseline experience for the IPE throughout the curriculum.

Still, as is the case in Nebraska, health care practitioners in North Dakota must confront the geographic barriers of coordinated care.

“In rural settings ... there are fewer personnel and specialties in a single location,” said Richard Van Eck, PhD, associate dean for Teaching and Learning University of North Dakota School of Medicine and Health Sciences. “The complexity of all these professionals communicating in different locations to do things like transport a patient to a higher level of care, present unique challenges.”

To address those challenges, North Dakota turned to telemedicine. The Remotely Operated Biomedical Telepresence Systems consist of three patient simulation scenarios. Teams comprised of trainees from up to five disciplines work on cases with one team member being video-conferenced in. The interactions are recorded and analyzed by faculty members.

“Seeing other people demonstrate their expertise is what created a feeling of respect and appreciation for the other professions that you don’t get by simply learning about a profession,” Dr. Van Eck said. “When you see somebody demonstrating expertise it is qualitatively different and you’re not teaching about your experience.”

In light of the success of the program, the school is examining using telemedicine in all of its simulation scenarios.

Interprofessional education at the residency level

Using simulated health records, residents at the Indiana University School of Medicine are working with graduate-level peers in the school’s nursing and social work programs to collectively create comprehensive care plans for geriatric patients. The plans are formed through the Regenstrief-EHR

Clinical Learning Platform, which includes detailed information from real-life records that have been altered to preserve anonymity.

Each month, 15 trainees—five social workers, five nurses and five residents in the midst of a geriatric rotation—are e-mailed a geriatric case for review that includes a case file and patient summary. The initial communication between team members happens within the EHR system and through a team card, on which team members contribute to shared notes. The trainees then meet once a month for a face-to-face session to discuss the case.

“The big take-home for our students, of all the things that we cultured from our qualitative data, was the opportunity to learn about other professions, to interact with other professions, to see other professions’ viewpoints and to see how other professions were caring and documenting their care of geriatric patients,” said Debra Litzelman MA, MD, professor of medicine at Indiana University (IU) School of Medicine and director of Education and Workforce Development at the IU Center for Global Health.

All three schools featured in the webinar are members of the AMA’s Accelerating Change in Medical Education Consortium. The Consortium is a group of 32 institutions that received grants from the Association with the goal of creating the medical school of the future by developing and spreading innovative ideas and practices.

A recording of the webinar and a discussion of how the innovative use of technology can help incorporate students into more effective interprofessional teams are available part in the Accelerating Change in Medical Education Community.