

How medical students use systems thinking to help patients

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What resources do patients need, and how can they access them? Those are two basic questions that might not explicitly fall in the typical medical school curriculum, but whose answers are vital to positive outcomes.

A systems thinking approach includes a thorough understanding of health care structure and processes. A recent episode of the “InsideTheBoards” podcast looks at that approach and how it might be applied to questions that arise on the United States Medical Licensing Examination (USMLE) and how students used systems thinking during the pandemic.

“It’s important to have this infrastructure,” said Angela Jacob, a fourth-year medical student at the University of Toledo College of Medicine and Life Sciences. “It sets up this organized system with these very clear objectives and goals within that system. And then when everything is working in harmony, it creates this environment where patient care is at the core.”

Mobilizing for patients

Jacob’s background in working with populations in need inspired her to kickstart the UTCOM Cares project with her peers during the pandemic.

The project began with a simple text message thread asking if students—pulled from clinical interactions at the outset of the pandemic—would be interested in offering child care for attending physicians. When that response proved to be enthusiastic, the project’s mission morphed into offering services and resources to geriatric and pediatric patients.

“Those populations became disconnected during the pandemic from our health care resources,” Jacob said. “Our group's goal was to determine the needs of these different populations of patients within our community and to connect them with resources that they could not access because of the pandemic.”

At the outset of the pandemic access was the biggest barrier for many patients. This plays right into a systems thinking approach, according to Stephanie Mann, MD, associate dean for clinical undergraduate medical education at the University of Toledo.

“When you take a step back and look at the systems thinking—it's really trying to understand what is available, and how do we get [resources to] people who need resources the most,” Dr. Mann said.

“That was what impressed me the most in terms of the work that [Jacob] and her colleagues did. They really figured that out.”

The quadruple aim

Jacob said that UTCOM Cares work was within the quadruple aim framework required for systems thinking: better patient experience, better population health, lower overall costs, and improved professional satisfaction.

In preparing for exam questions related to systems thinking, one key differentiator that came up was the distinction between the quadruple aim and the triple aim. The quadruple aim includes the first three domains of the triple aim while adding professional satisfaction.

“Without taking that into consideration, we could have the best health care system in the world that provides the highest quality, highest value care, but if we have providers that are exhausted and are burnt out and who themselves are not engaged in their environment it would be very difficult to provide that optimal patient care experience,” Dr. Mann said.

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