

TEAM SPIRIT

Two programs showcase the important role of pharmacists in interprofessional education



BY CHRISTIANNA MCCAUSLAND

On any given Tuesday, deep in the University of Maryland Medical Center, University President Jay A. Perman, MD, can be found squeezed into a small conference room with a group of professors and students. This is when Perman oversees the President's Clinic, a referral clinic for pediatric patients birth to age 18 with gastroenterological complaints (Perman's area of specialty).

The students come from all of the University of Maryland, Baltimore's professional schools — dentistry, law, medicine, pharmacy, nursing, and social work — to work as part of an interprofessional team. Pharmacy students provide inquiry and insight into medication history, drug interactions, and the impact of over-the-counter products on patient health and allergies — information that is vital to patient evaluation and treatment.



From left, Elsie Stines, MS, CPNP; Marc Heikens, MD; medical student Brandon Smith; and fourth-year student pharmacist Lisa Hutchins.



President Perman and students.

On this particular Tuesday, the first patients are an 8-month-old with reflux and a 3-year-old with a body mass index over the 95th percentile. While the children's parents have come to the clinic for answers, as Perman speaks to students about the day ahead, he's very clear about the reason they're all present.

"I care only a little bit that you learn about pediatric gastroenterological disorders," he tells the group of students. "What I really care about is that you learn to appreciate each other."

The President's Clinic is a model for interprofessional education, a concept Perman champions. At the clinic, students learn respect and appreciation for each other's disciplines and engage in reciprocal consultation. Students from the School of Pharmacy participate in a three-week rotation at the clinic under the guidance of Jill Morgan, PharmD, BCPS, an associate professor in the Department of Pharmacy Practice and Science who specializes in pediatric pharmacy and who is a permanent member of the clinic team.

"The University's tendency has been to educate in silos," Morgan explains, "but right after graduation, if you practice in a hospital, you work on a team. If you have a better understanding of the training other health professionals have, the knowledge they possess, and the part they can play in patient care, it makes you a stronger practitioner and it is better for the patient in the long run."

After Perman's introduction on clinic day, the group

breaks into two multidisciplinary teams. Each team is assigned a patient. The group conducts a thorough medical history and examination with the patient. Morgan's two pharmacy students are responsible for taking a complete medication history, including herbal and over-the-counter medications, and noting any allergies. Students are encouraged to ask questions of the patients and their parents. In the consultation regarding the 8-month-old, Rae Smith, a fourth-year student pharmacist, ascertains that the infant was prescribed medication, but the parents did not give the complete dose nor could they recall the medication's name. It will be Smith's responsibility to track down the pharmacy and learn more about the specifics of the medication. Back in the conference room, the team regroup with Perman to review the cases and settle on a care plan.

Ofuje Daniyan, another student pharmacist, participated in the clinic as part of his required fourth-year rotation. Perman again has reached his goal for the clinic, as Daniyan states that his experience taught him "the importance of a diverse medical team."

"So many times when you'd ask a question, you'd think you had the answer," he explains of the patient-student dialogue. "Then someone else would ask a question and open the door to another possibility." He explains this was particularly true of the queries posed by students from the School of Social Work, who often uncovered social issues underlying the medical complaint.

Daniyan says the experience has changed the way



Lisa Hutchins and Brandon Smith with a clinic patient.



Jill Morgan and pharmacy resident Sharon Martin.

he thinks health care should be delivered. “[Inter-professionalism] allows for better health care and outcomes, and you deal with the whole patient, not just the disease state,” he says.

While interprofessional teams are the norm in hospitals, it’s still new in ambulatory settings and faces implementation obstacles due to existing fee structures. But that doesn’t mean the experience of the President’s Clinic is any less valuable. Morgan shares the story of a medical resident who participated in the clinic and later bumped into Perman and discussed his current work with the president. Based on his positive experience working with pharmacy students in the clinic, the resident expressed a desire to add a pharmacist to his team. Morgan herself often gets calls and emails from physician and nurse colleagues who have questions about medications.

“Dr. Perman always says, ‘Now that you’ve been exposed to these different people, don’t forget about them when you’re out there practicing,’” says Morgan. “Maybe you need someone to consult with. Or you need a pharmacist half a day a week for your more complex patients. The important thing is to remember these people are there and are a resource.”

Heather Congdon, PharmD, CACP, CDE, has learned the importance of the interprofessional resource network through her work at Mercy Health Clinic, which provides free primary health care to uninsured, low-income adults living in Montgomery County. Congdon is the School of Pharmacy’s assistant dean at the Universities at

Shady Grove in Rockville. She, along with two additional pharmacists, provides medication therapy management (MTM) to a predominately Latino population of patients with poorly controlled diabetes. Two pharmacy students and two pharmacy residents assist the team. Congdon describes student participation at the clinic as a win-win situation.

“The students get great exposure to an interprofessional team environment by working with physicians, nurses, dietitians, and social workers,” she says. “The patients also benefit from the time and education that the pharmacy students and residents are able to provide, in addition to the interprofessional care they are receiving.”

Mercy Health Clinic has always had an interprofessional approach to caring for diabetic patients, with doctors, diabetes educators, and a registered dietitian on-site. Yet the providers faced difficulties coordinating patient care across disciplines and services because there wasn’t an effective referral mechanism. By obtaining support from a small grant, Mercy Health Clinic (in collaboration with the Primary Care Coalition of Montgomery County) launched the navigator-facilitated care coordination algorithm (NAVCOM) project in 2011.

Congdon explains that the care providers came together to create a referral algorithm of indicators for patients with poorly controlled diabetes. The grant paid for a patient navigator, Cristy Ruiz, who used the algorithm to coordinate patient care across all disciplines. The care team also met biweekly to discuss cross-discipline action plans for patients in the project.

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—HEATHER CONGDON



Heather Congdon (right) and Laureen Harkins, RN, at Mercy Health Clinic.

“All these services already existed, we just weren’t working as collaboratively as we could,” Congdon explains. “By creating this algorithm and instituting the navigator, we showed a significant decrease in patient hemoglobin A1C.” (A1C is a test that shows the average level of blood sugar over several months and is therefore a good indicator of a patient’s control of his/her diabetes.)

In a report published in the fall of 2013 in the *Journal of Health Care for the Poor and Underserved*, Congdon revealed that 76 percent of the participating patients saw improvement in their A1C level, with the average improvement being 2.5 percentage points (10.6 to 8.1 percent). One patient, a 51-year-old diagnosed with diabetes approximately two years ago, was experiencing marked escalation in his A1C. When it reached 14.1 percent, he was immediately entered into the care coordination project. After six months of participation in the program, his A1C had decreased to 6.5 percent. Through his MTM visits, it was discovered that the patient was on a high dose of metformin, a medication used to treat diabetes, with a steadily increasing serum creatinine. Congdon and her physician colleagues monitored the creatinine closely and eventually discontinued metformin, a change the patient was counseled on by the pharmacy team. Another patient enrolled in NAVCOM was able to stop taking insulin and control her diabetes with diet and less invasive oral medications.

“We work in a collaborative environment at Mercy Health Clinic,” says Congdon, “but by adding this algorithm, the patient navigator, and the biweekly meetings, we significantly improved patient outcomes.”

Ruiz, who has worked as a patient navigator for cancer

screening as well as diabetes, has seen firsthand the good that can come of coordinated, interprofessional care. “The team worked wonderfully together and communication was amazing between doctors, myself, and the team from the School of Pharmacy,” she states.

“It was amazing for me and for Dr. Congdon to see how these [pharmacy] students were changing some of these patients’ lives,” she adds. “You could see in them how they felt good about what they were doing.”

The primary benefit of interprofessional health care teams is the positive impact they can make on patient outcomes and safety. At the President’s Clinic, for example, the parents of the refluxing infant learned how to improve their feeding practices and that medication was actually not recommended for their child. Based on the profoundly positive data from the initial NAVCOM program, Congdon is seeking new grant funds to reinitiate and expand the project.

But there are benefits to students and professionals as well. They describe the multidisciplinary experience as both humbling and empowering.

“I love working in a collaborative environment because as the medication expert, I am able to provide that knowledge base and insight in the team setting,” says Congdon. “On the flip side, I don’t know everything ... as such, I like being able to call on my team members in their area of expertise to supplement my own.”

As pharmacists continue to expand their role beyond dispensing medication and into professional services, their contributions to interprofessional education and teamwork will take on greater meaning. ☀