TIM HOFF: Welcome to Ethics Talk, the American Medical Association Journal of Ethics podcast on ethics in health and health care. I’m your host, Tim Hoff. In late 2007, the newborn twins of actor Dennis Quaid and his wife, Kimberly Buffington, were administered nearly fatal doses of heparin, a blood thinner. The twins and another patient in the hospital received 10,000 units of this medication instead of the intended ten units. Pharmacy technicians mistakenly delivered similar looking vials to the pediatric unit where they were administered. In cases like these, it’s easy, and perhaps for the people who are most affected by these errors—that is the patients and their loved ones—perhaps tempting to blame specific identifiable clinicians for their mistakes. But there’s a broader lesson here that seasoned health professionals and health professions educators need to share with students about patient safety.

DR JOE ZOREK: We use these kinds of stories and these kinds of cases not to point fingers at any one individual, but to highlight how we all need to work together within this complex system to strengthen the care that’s provided and improve outcomes, and at a bare minimum, ensure that there are no tragic mortality events associated with a lack of the kind of teamwork and collaboration we need.

HOFF: In healthcare settings, patients are cared for as much by individuals as they are by teams. Good care of patients in clinical settings requires productive cooperation among clinicians of all professional backgrounds. Art therapy, chaplaincy, medicine, music therapy, nursing, physical therapy, pharmacy, psychology, respiratory therapy, and social work, for example, are some of the most common, but that’s certainly not an exhaustive list. What’s now called Interprofessional Education, or IPE, has its roots in patient safety, a necessary goal as demonstrated by the case above. But as its popularity grows, cross-disciplinary health professionals increasingly recognize areas of health care that IPE can improve by mitigating the chilling effects of hierarchies or by including more collaborative cross-specialty instruction.

Joining us to walk us through the changing landscape of IPE in clinical care and health professions education is Dr Joe Zorek, director of the University of Texas Health Science Center at San Antonio’s Quality Health Enhancement Plan—Linking Interprofessional Networks for Collaboration—and associate professor with tenure in the School of Nursing, where he teaches advanced pharmacotherapeutics. Dr Zorek, thank you so much for being on the podcast today.

ZOREK: Thank you, Tim.

HOFF: The connection might sound obvious to us now, but interprofessional education arose from the collective decades-long process of realizing that interprofessional practice flourishes from solid, interprofessional educational preparation. So, to begin with, can you tell us about the steps of that process of developing IPE as a field?
ZOREK: Interprofessional education has been a desire within health professions education for decades. The very first report that was published by the Institute of Medicine, which is now called the National Academies of Medicine, the very first report, published in 1972, was essentially a call to action to train health professionals students in IPE and collaborative skills. It was a, it was sort of the foundational, seminal report that really drew attention across the country to the need for IPE to strengthen collaborative practice. And so, a lot of time has passed since 1972, and there were fits and starts along the way. Some of the work that really helped push the field forward, in the early 2000s, there was a series of reports that were generated by the Institute of Medicine that highlighted the risks of poor teamwork and collaboration on patient outcomes. So, all of these documented in really clear language that the number of preventable morbidity and mortality events, that these are preventable events, that the solution, one of the key solutions, is better and stronger teamwork in clinical settings.

And while it wasn’t planned, to my knowledge, though, that report sparked a dialogue that led to the generation of a new conference, a new set of stakeholders, the recommendation being if we’re going to transform the clinical environment, we also need to be transforming the educational environment, that they need to go hand in hand. These things don’t exist in a vacuum. That the educational system is a preparatory, a strong driver for change in the practice environments that graduates inhabit. And so, a report published in 2003 by the Institute of Medicine really was a call to action to say we need to...that all graduates in the health professions need to graduate with a core set of competencies in interprofessional collaboration and teamwork. And so, that series of Institute of Medicine reports, referred to as the Crossing the Quality Chasm Series, sparked massive change over the last two decades. And there was lots of recommendations made in those reports. Some of them came to fruition. It didn’t all pan out historically over the last two decades the way that it was envisioned in this sort of seminal series, but different organizations across the country did pick up the ball in really important ways.

One of the most important organizations is the Interprofessional Education Collaborative. This is a collective of all the professional organizations that represent essentially all colleges and schools of health within the health professions across the entire country. They’re referred to as IPEC. They developed competencies that really are the, truthfully, they are the foundation of how we teach, what we teach. They were first published in 2011. They were revised in 2016, and they’re currently under revision for an updated version that’s set to come out in 2023. So, IPEC established these competencies. One of the really important calls, going back to the IOM series, was for accrediting bodies to band together, that accreditation should be, in the words of the folks who wrote that report, was an unused strong lever of change. And so, the power of accreditation needed to be leveraged to facilitate this large-scale transformation of education.

I was pulled into a project that was being planned by a group of accreditors called the Health Professions Accreditors Collaborative, sort of a sister organization to IPEC. Where IPEC represents colleges and schools in the health professions, HPAC is a collective of health professions accreditors. And so, HPAC came together, again, really around the concept of what kind of guidance could we be providing to the field, to all of our professions, to help lead to positive change as it relates to IPE? So, essentially, this in a short, relatively speaking, a short period of time in academia, from 2000 to 2019 when the HPAC guidance came out, it was like mountains were moved. We had a common language in the IPEC competencies. We had consensus guidance from 24 accrediting bodies. And the combination of that national infrastructure through the National Center, good working relationships between and across these organizations, we’ve hit a, we’ve really, IPE has hit a stride in that now we’re at, you know, 2023 IPE has hit its stride, and there is large-scale transformation happening because of
this historical context and the hard work of the individuals who not only conceptualized IPEC and HPAC, but also got those groups off the ground and towards consensus and leading to the documents that are driving change.

HOFF: Hmm. So, let’s dive a little bit more into the specifics of what IPE actually sort of teaches health professions students and trainees. I think that most people could identify poor interprofessional practice, especially as it relates to the hierarchical systems of training in which medicine is viewed as the most important, and everything else kind of falls under that. How is high functioning interprofessionalism defined, and what are some specific behaviors of good interprofessionalism that IPE searches to foster in students?

ZOREK: High functioning interprofessional teams are founded and based upon trust. And so, one of the reasons why the IPEC core competencies is so important is that it lays out some of the behavioral expectations of not just physicians or nurses or pharmacists or others across the health professions, but of everybody. They’re sort of foundational expectations of teamwork behavior that all interprofessional team members should be competent in. Some of the most important ones we’ve touched upon already in our dialogue, but strong interprofessional communication is often highlighted as one of the most important. There are competencies that we are training our students in as it relates to functioning within a team. What does strong, what does positive teamwork look like? Some of that has to do with collaboration, coordination, clear communication, as we mentioned.

If we are going to expect a heterogeneous group of highly trained individuals to function as a team, as a single unit, one of the other core competencies everyone needs to know is what are the roles and responsibilities of each one of those individual team members? So, if I’m a pharmacist coming to a team, and I don’t understand what a physical therapist does as it relates to pain management, for example, then we’re not speaking the same language. We’re not able to lean on one another the way that a high functioning team needs to. And so, for a physician or a nurse or a nurse practitioner to make the best, to leverage the skills of a pharmacist in real time with a complex case that’s evolving in real time, they need to have a baseline understanding of what is it that a pharmacist brings to the team or could bring to a team. And so, roles and responsibilities are really critical, that understanding across the board.

And then this is the Journal of Ethics for the AMA. Values and ethics for interprofessional collaboration is another core area within the competencies that we teach. Some of the basic underpinnings of trust, like I said at the start of this response, is just are you respectful? How do you handle a stressful environment within a team when maybe there’s conflict, maybe there’s disagreements? It’s how do you maintain an environment of respect? That sounds real basic. This is kind of something we should all know from our kindergarten days. But unfortunately, we don’t! And we’re dealing with, in many cases, life or death or health, well-being, you name it; we’re dealing with people’s lives. And so, oftentimes there’s stress involved. Oftentimes there’s conflicts. So, one of the other sort of core areas of knowledge in this area that all health professionals need to have, they need to have behaviors and skills that will allow them to defuse tension, to resolve conflict. I think these are probably the biggest areas. If I had to sum it up, like what does a high functioning team look like, and what are the behaviors of good interprofessionalism, these would be the areas I would focus on.

HOFF: Right. So, these skills of good interprofessionalism, they don’t come from nowhere. And so, an important part of building these interdisciplinary structures of care is having interprofessional faculty well-equipped to model good interprofessional behaviors to their health profession students. And this is probably especially true with the kinds of IPE skills that are
more difficult to teach directly. For example, you can have a lecture on how a physical therapist might be engaged in a care plan to help treat pain, but it’s a little bit harder to provide discrete steps to be a good teammate or to be a good communicator, things like that. So, how has health care curricular design changed to nourish interdisciplinary health professions education, say, in the last two decades or so?

ZOREK: It’s a really good question. It’s changed dramatically from my perspective. So, if we go back to those historical comments about the IOM, Crossing the Quality Chasm Series, up through IPEC, the National Center, HPAC, there has been massive change. So, even just going back a decade, it was common for—it was common and it was celebrated—for there to be a single day across an academic calendar that was devoted to IPE. That wasn’t very long ago that that was seen as really setting the bar for high quality IPE. And so, what it looks like now, the best, the universities across the country that have the strongest IPE programs, they have an IPE program that is longitudinal in nature. It starts on day one, and there are multiple points of contact throughout the course of every student’s progression within their individual degree program. And there are numerous opportunities to not only learn about the concepts or the theories, like you had mentioned a lecture could teach you about the roles and responsibilities of any given profession, but also creating the space for meaningful engagement, dialogue, and problem solving within interprofessional teams.

And so, what a strong IPE program looks like now is multiple points of contact where students are put into teams, and they’re challenged, oftentimes, with clinically or ethically complex cases like the Dennis Quaid story to work, to not only learn about the complexities of delivering high quality care when there are so many people involved, but to give them an opportunity, first, in a really safe environment, to talk about what they would do or what they think they should do, but then to have a progressively developmental program that challenges students at higher levels of learning. So, whereas you might be disseminating knowledge in early IPE experiences, in a middle portion of an IPE program, you might be putting them into a group to work through a simulation. Maybe there’s a cardiac event. Maybe it’s, we have at UT Health San Antonio currently happening right now, we have interprofessional teams of students who are working together through a telehealth simulation that’s focused on dementia and supporting caregivers in the dementia space. And so, that’s way more complicated, and that’s a higher-level learning outcome that we’re expecting, putting students in teams like that where they’re actually getting experience in a safe and secure environment. Ultimately progressing to the latter end of all of these educational programs will require clinical rotations, that kind of thing, where progressing from the very early stages into the simulated experiences and ultimately into real time collaborations with real patients, real families, and real health care providers. So, a strong IPE curriculum right now is longitudinal, it’s progressive in nature, in terms of the complexity of expected learning outcomes, and they’re all, all of the learning outcomes in each point of contact are connected in one way, shape, or form to the IPEC core competencies.

HOFF: It’s so nice to ask a question about health care curricular design that has a good story attached to it, of the development and integration of something that’s very important into the entirety of a student’s educational career.

ZOREK: Yes.

HOFF: Too often on this podcast, we ask about changes to health care curricular design for these very important topics, and it’s what you’re saying. They get an hour lecture, they get an optional lecture, things like that. So, it’s very nice to hear a success story.
So, with the lateral integration of IPE into health professions education, one important part of measuring whether or not that’s successful is assessment. So, which methods are used to assess whether, when, and how IPE promotes students’ learning about how to practice good interprofessional caregiving?

ZOREK: In terms of assessment, assessment is always tied in a strong educational activity. It’s always tied to the primary learning outcomes that should have been prospectively developed. And so, again, this is why I cannot overstate how important the IPEC competencies are as a guide for educators. And so, we always identify three to five IPEC competencies that we think are appropriate for learners at a particular level that we’re targeting. We build our programing to help advance those competencies, and we build our assessment strategies directly around those competencies. So, that’s one method that’s used.

The other method that’s used, for listeners to the show who are not aware of the Institute of Medicine published a report, I believe it was in 2015, about measuring outcomes in IPE and collaborative practice. There’s a model called the, it’s the IOM’s Interprofessional Learning Continuum model that really, it’s a combination of some of the outcomes we’ve talked about or expectations. It starts with lower-level learning outcomes like reactions, attitudes, and perceptions, and it progresses to knowledge and skill acquisition and ultimately, to behavior change. What’s really cool about the IOM’s model is it doesn’t stop with student behavioral change. It progresses into organizational change, which again, highlights, going all the way back to the IOM series, we can’t, no one entity is going to address this issue in a vacuum. So, we need to prepare students as best we can, but the education needs to progress into continuing education environments for existing clinicians. And we have to have that connection point. Otherwise, the progress just stalls. You’re teaching students about things. They get into their work environments, and they’re asking like, “Why did we learn about all of that great teamwork,” if they’re not inhabiting practice environments that espouse it.

HOFF: Broadening our scope a little bit, how do professionals who are not health professionals—but as colleagues in law, humanities, business—contribute to interprofessional education and practice?

ZOREK: Some of the most important folks, the examples, in prep for the interview, the examples I was most interested in, pre-dating COVID, there was a lot of attention to infectious diseases other than COVID, like MRSA or C. diff. There’s great work that’s been done in infection control, for example, in hospitals where interprofessional teams have reworked themselves to incorporate housekeeping staff in a more, as not as like a, you know, as a formal team member that has the same kind of respect as everyone else. Because to control C. diff and stop the spread of C. diff spores from one patient to another, from one room to another, it requires incredible work from hospital housekeeping staff. So, that’s one example that always comes to mind.

Another one that comes to mind, and we’ve talked about a lot about, I mentioned the work that we’ve done at UT Health using graphic novel storytelling. If I can throw in a plug for my book, I published a book with McGraw-Hill in 2021 where we were experimenting with this kind of storytelling, partnered with an artist. So, we’re leveraging the creativity of an artist to tell stories that health professionals can’t tell on their own, cannot convey the emotion that, for example, in our New England Journal of Medicine publication, we’ve heard a lot from people who’ve reached out to say, “That story touched me deeply because I can relate,” caring for my mom, caring for my dad, watching my grandmother or grandfather progressively decline with dementia and all the impact on the family that it had. We would never have struck that chord without
beautiful art from George Folz, our coauthor on that paper and a good friend of mine. And the book that I published, *Interprofessional Practice in Pharmacy*, featuring illustrated case studies, same storytelling mechanism where we’re able to highlight the roles of your non-traditional folks.

And so, one of the stories that we tell that I wrote about in the book with my colleagues and contributors was how important the physical space of a clinical setting is, as either a facilitator of or a barrier to strong interprofessional teamwork. So, now we’re talking about architects. We’re talking about interior designers. And if you have the right people inside of the wrong space, you have a problem. And so, it’s not easy to sort of reconfigure or remodel an existing clinic, for example. But if we want to maximize interprofessional teamwork in a clinic setting, we need to have the right physical and interior design to do so.

Another group that comes to mind for me are law students. So, there are lots of really well-known law advocacy organizations that run out of law schools where law students are helping folks, pro-bono work, that kind of thing, with support from law faculty or mentors in the community. So, interprofessional law in ethics activities have been published. That’s a really nice partnership. Medical-legal partnerships, that’s another one that comes to mind. I always think about social workers as health care providers, and I’m often reminded by my social work colleagues that medical social work is just one sliver of their profession. But social workers are another really critical contributor to high functioning interprofessional teams, as are public health experts. And those are some of the areas that come to mind, the professions that often get left out.

HOFF: I feel like your response was almost tailored for the content of the Journal. We’ve got upcoming issues in architecture in health care spaces and in medical-legal partnerships. And of course, we’ve published a lot about the roles of the humanities in health professions education. So, thank you for bringing those things up, and I encourage folks who are interested to poke around on the website.

So, to wrap up here with our shortest but probably most complicated question, how might IPE be leveraged to help motivate justice in health care?

ZOREK: This is such a complicated question. It’s a question that is impacting the health care space and industry but that is emanating from other parts of society, including sort of legal and regulatory activities across the United States that have shifted, ultimately shifted resources in health, in wellness for individuals in different communities. And so, this is not a question solely that can be addressed by health care professionals or educators in the health professions. But I believe that education, educators, and educational systems have a really important role to play in motivating justice in health care, inspiring justice in health care and advocating for it, and ultimately helping instigate more justice in health care.

There are, within the IPE world, there are lots of well-known interventions that are community based for IPE. And I’ve done a lot to sort of shine a light and shower some praise on IPEC throughout this interview, but one additional really positive thing that IPEC has done is a national award that they give out every year in partnership with the US Public Health Service. And it’s an award for high quality IPE that’s having an impact on communities. And so, the way that we, the way that most universities are conceptualizing moving the needle on justice in health care is through community engagement. And in many of the community engagement initiatives that are happening coming out of the expertise that’s housed within universities, most of those involve learners. And most, many of them, just by their very nature, are interprofessional, where learners from different professions are involved in these community-
based interventions. And so, I just wanted to do a quick shout out to IPEC and the United States Public Health Service for that award.

The University of North Florida won for an outreach program in 2022, Kean University won in 2021, and in 2020, a collection of universities, three different universities partnered as it relates to an international outreach experience, won the award. So, that’s the way that some of the societal injustices that exist are being addressed at a national level. And ultimately, a lot of this is happening around health professionals trying to develop programs and interventions that address the social determinants of health. And so, there are health implications for some of the societal injustice that exists, and health professionals certainly have a role to play to address them through interprofessional interventions.

I think one of the professions that I mentioned in a previous question was public health. And I think we saw the incredible impact of public health experts during the COVID pandemic. And there’s a huge role to play, when we think about community-based IPE interventions, there’s a huge role for public health experts to play in the design and implementation of those, leveraging their knowledge and skills and expertise to ensure the highest impact of any kind of IPE intervention in the community. But from my perspective, such a large issue, but health professionals definitely have a key and critical role to play. [mellow theme music returns]

HOFF: Dr Zorek, thank you so much for your time on the podcast and for sharing your expertise with us.

ZOREK: It’s been a pleasure, Tim. Thank you for the invitation and the opportunity to talk about this really important topic.

HOFF: That’s all for this episode of Ethics Talk. Thanks to Dr Zorek for joining us. Music was by the Blue Dots Sessions. To read our full issue on IPE and Innovation, head to our site, JournalOfEthics.org. And for all of our latest news and updates, you can find us on Twitter @JournalOfEthics and now on Instagram journal.of.ethics. We’ll be back next month with an episode on Patient-centered Transgender Surgery. Talk to you then.