Quick Takes
A PODCAST BY PHYSICIANS FOR PHYSICIANS
HOSTED BY DR. DAVID GRATZER

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Double Take #6: Peter Selby on technology and education

David Gratzer: We're now speaking with Dr. Peter Selby, who's a physician here at the Centre for Addiction and Mental Health in Toronto, and he's also Chief of Medicine in psychiatry. Welcome, Dr. Selby.

Peter Selby: Thank you.

David Gratzer: Dr. Selby. I know you've a keen interest in education. Can you comment on the current state in terms of technology and education?

Peter Selby: Technology has helped us really make education much more accessible to providers, especially busy providers at the frontline, so I think it's a great advance that people don't have to come into a geographic classroom to learn and gain knowledge.

David Gratzer: What are some examples of the way that access gap has been bridged?

Peter Selby: So we've see a plethora of online self-study modules and webinars that provide traditional models of teaching, like lecture style, but they are accessible online. That allows people to access them when it's convenient to them rather than breaking up their clinical day. They can actually access this wherever – they can attend grand rounds et cetera. So that you're seeing as a use of technology. Then you're seeing more in-depth self-study modules where there's more instructional design and you're having people actually take some time to design interactive learning objects and people can use that as self-study to really get some more sort of learning. You can have video, you don't have to have just written material. And then you have, of course, online courses where people register and they form an online community and learn together over a period of time. So there are variety of things that technology has enabled. That really speaks to this issue of synchronous learning versus asynchronous learning, and that's where we are currently.

David Gratzer: I'm working with a resident who had a question about the titration of a medication, so she went to UpToDate, learning on the fly. What are other examples of just in time learning that excites you?

Peter Selby: Just in time learning. In fact, just yesterday I was talking about this because the amount of information coming at us is doubling and tripling within short order, in medicine, it's impossible for us to know everything. And so I think the future might be some sort of app or jackpot that's in our pocket that when we put in someone's symptoms, it, on the fly, teaches us about those things. And then it stimulates us to then go back and learn about it. If it's relevant to our work, we're going to see those cases again. So I think using the handheld smartphone as a way to actually put technology and education in our hands and, in a way, are external brains, because our brains aren't big enough to hold all the information being generated.

David Gratzer: Dr. Selby, education's really changed in recent years. Why don't we talk about a few of these developments and get you to comment. VR.

Peter Selby: I think VR is a great opportunity in its variations to create immersive experiences for learners so that they can actually learn skills and, potentially, attitudes. Because now you're going to activate more affective learning styles as opposed to just cognitive information that's dry. With VR there's potential for body learning. So, in a way, the (psycho mode of learning) may help us learn in different ways, and for different types of learners who prefer to learn different ways. But you'd get different modalities to get the information into the person and incorporate it.

David Gratzer: Simulation.

Peter Selby: Simulations are great ways to build skills. And we've been using it to help people understand and deal with things like prescribing opiate agonist therapy or methadone to patients. And in the simulations, they actually get to see what it's like to be a patient. They actually get to talk to a patient and they have to really practice translating the guidelines into simple language that the patient can understand. And so they really can simulate a lot of skills, of communication skills or practice skills, and we can observe and give them real time feedback as they're doing this in a safe place.

David Gratzer: What is something that we might worry about in the current state of using technology in education?

Peter Selby: The biggest risk is self study without actual demonstration of performance. And I think that's the challenge. The bulk of things I see online do not actually test the person for performance, but that's the same for in-person classes as well. I think that's a problem in education, continuing education specifically. We just do it, and people like the food and the interactions, but then we don't spend the time to actually see whether they got what they said they needed to get at the end of the course and did they actually put into practice. So I think that's the risk with technology: that you can create it, but if you don't evaluate it, there will be a problem.

David Gratzer: You've been involved in many education projects over the years and have had education leadership positions as well. What's an education project you're particularly proud of?

Peter Selby: So the TEACH project was essentially started to create capacity for different healthcare providers to deal with the number one addiction in Canada, which is tobacco addiction. There was a gap, so we identified the gap. We identified the need and we created this course that had a core course that lasted 18 hours, so to speak. And then we added additional hours to create a certificate for 40 hours. And that has been so attractive to the variety of health care practitioners across the province.

David Gratzer: What are some of the metrics around this program?

Peter Selby: The metrics are: we do a baseline assessment and we look at outcomes immediately after and then three and six months later. And so we are seeing practice change, self reported practice change, at six months.

David Gratzer: How many people have gone through the course?

Peter Selby: Fifty-five hundred.

David Gratzer: Fifty-five hundred. Right across the province?

Peter Selby: Across the province. And because it's now online, it's an online course, we're getting people from different parts of the country. So this ecosystem that has developed around the course has been a really interesting way to move the needle forward.

David Gratzer: What's an example of the impact TEACH has had?

Peter Selby: We went from dissemination, capacity building and education, and now we have a technology enabled platform called Stop. And we've been able to implement that, with these practitioners, in over 85 percent of all family health teams in Ontario, 75 percent of CHC (community health centres), 75 percent of nurse practitioner-led clinics, about 40 percent of all the addiction agencies, and about over 50 percent of all the Aboriginal Health Access Centres. This would not have been possible if we didn't have TEACH as an enabler to prepare the soil for implementation.

David Gratzer: Can you give a story about how TEACH has been successful?

Peter Selby: When the Syrian refugees arrived in Toronto nobody realized that they smoked. Much of their money was going towards cigarettes and there was no assistance to help them quit smoking. The problem was they mostly spoke Arabic and there wasn't a lot of support. So through this community of practice we created an Arabic resource that was then enabled and now can be used anywhere in the province when anybody is doing smoking cessation with Arabic-speaking refugees, even if they are not native Arabic speakers. Because with this mechanism, we were able to engage an Arabic-speaking physician to create the content and the technology has allowed us to move. That's the impact of this. It is really an important way for us to look at – that our education is speaking to the issues of disparity of how this tobacco addiction epidemic has affected our populations. And and part of this is, you design for the most vulnerable, you'll end up designing for everybody.

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