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HOSTED BY DR. DAVID GRATZER

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The evolution of medical education with Dr. Ivan Silver

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[Musical intro]

David Gratzner: Textbooks, highlighters, classrooms. Oh, goodness. Today we're talking about AI, sim and e-learning. The world of education has changed and so has MedEd. What's right and what's to be done?

My name is Dr. David Gratzner. Welcome to *Quick Takes*. I'm a psychiatrist here at CAMH, and today we're talking about medical education. Joining us is guest, Dr. Ivan Silver. Dr. Silver is a recently retired geriatric psychiatrist and he's had a storied career as an educator. Dr. Silver is the inaugural director of the Centre for Faculty Development. Then he was vice dean of CPD here at the University of Toronto's Faculty of Medicine. Then he joined CAMH, where he was the first vice president of education. And of course, he is a full professor at the University of Toronto. Welcome, Dr. Silver.

Ivan Silver: Thank you. Thank you very much.

David Gratzner: Dr. Silver, a storied career. How many awards in education are named after you, sir?

Ivan Silver: I think, two, I have one within the Department of Psychiatry and I have another in the Faculty of Medicine, and they're both acknowledging excellence in continuing professional development.

David Gratzner: There's also a CAMH award, is there not? You've so many awards, sir, you've lost count.

Ivan Silver: Yeah, there was. There was an award that changed every year, and we would honour a certain person in a certain field, and we kept changing the award. The important thing is we were acknowledging and for one year, the award was named after me. Yeah.

David Gratzner: So two and a bit would be the correct answer, I suppose. How did you get interested in education?

Ivan Silver: Well, I think it has early beginnings. I was lucky enough to grow up in a home where education was incredibly valued, and we were steeped in it. My parents were both readers. They had interests outside of their work. They extolled and expected excellence in teaching and learning. They were both curious about everything beyond their work into culture and many other issues. So, I believe I was just brought up in an environment where I was always curious. I think I had mentioned maybe in a previous podcast that I, I really got my teaching chops by going to summer camp. And being involved in a youth movement as a young person, where I had the opportunity to, teach younger children than I was at a camp to teach folk dancing. I've always said that if you can engage eight- and nine-year-olds for 45 minutes to teach folk dancing, you can do just about anything else. That everything is a slide downhill from the challenges of engaging young children in something they may not even be aware that they might enjoy. So yeah, that's where I think it comes from.

David Gratzer: So, you've come a long way from dance instructor, haven't you?

Ivan Silver: I have. You know, I've had I've had medical challenges in my life. I developed juvenile rheumatoid. And so, I've been pivoting throughout my life. So, things that I was able to do, like play the piano, play the clarinet, dance, I've had to pivot those interests into other things which I think a lot was channelled into my academic career. The creativity part, my interest in in doing things differently, and innovating, I think it comes from my involvement in the arts and it's applied differently.

David Gratzer: How did you get interested in medical education? I mean, you suggest a lifelong interest in education, but as a doctor, when did you decide to push forward with MedEd?

Ivan Silver: Before I applied to medical school, I also applied to teaching colleges in case I didn't get in. I was going to pursue a master's and then a PhD in education. So, I think my interest in things academic and education were parallel to my application at medical school. And so I was lucky enough to have two things happen to me: to work at, at Sunnybrook, where education was highly valued, even at a time at that time in my career when it wasn't at the university so much, you could hardly get promoted on the basis of education. But I had chiefs and one in particular, Dr. Ken Shulman, who was who extolled the importance of education even before it became popularised or built into our department. And I was lucky enough to be influenced by him. And he encouraged me and made resources available. And within a year or two of my joining their group, I was the undergrad education coordinator for Sunnybrook. So I said yes, so that's another thing that's, I think, really important in choosing any line of your career within psychiatry is at the beginning to take risks, to say yes, to explore area that you might be interested in and see what you can do with it.

The other important person was Dr. Richard Tiberius. So at that time we had a professional medical educator, PhD, not clinician, I think it was a doctorate of education and he was highly influential. And what he did is, as not only a mentor, he brought me along as his trusty assistant when he didn't need one. And so I co-facilitated things that I certainly couldn't have done on my own. But I saw how an expert does it and he valued my expertise even I guess it was my innate abilities. But before I knew what I was doing, he valued my presence, and he did that over and over again. So, I've tried to follow his role model as a way of not just valuing my colleagues but enabling them to succeed as well. So, two fortunate things really drove my career along.

David Gratzer: Thinking about your years as an educator. Do you think the changes going on now are unparalleled?

Ivan Silver: Yes, I think so. And the I mean, there's been a lot of change in the last five years. I would say, number one, our attention to communication and the importance of EDIA. Which was not apparent. And there was prejudice, discrimination, lack of justice, lack of equity that has now evolved to infrastructure and of understanding and insight and consciousness training that our faculty is, actively engaged in. And we're also studying the best ways – this is an evolving area. The second area obviously is in the area of technology and what did we see happen three and a half years ago during the pandemic, we saw a pivoting occur unlike anything we've seen at any time, I think in the history of medical education, where we were sampling in the area of online education, accumulating evidence, it wasn't as though we weren't doing it, but it was slow and incremental.

Suddenly it was no longer incremental. I've never seen anything take on its own life like that. And suddenly we were all suddenly enabled because of the imperative, both for patient care and for medical education, but we ended up doing it. Now when we can catch our breath and look at, well, what is the optimal way to teach using online technology versus teaching in person. And I think now we're trying to figure it out. But the impetus and the research that's going on now of establishing the balance and also the sweet spot, which I think people are realising are very subject dependent, very skills dependent, knowledge dependent, culture dependent. There's so many we're realising the complexity of, of a task. Where we didn't recognise that as much as before. And I also think we're preparing for the next pandemic. I don't think we're ever going to go back. I

think online education is now probably the predominant model, even more so than face to face for much of knowledge teaching. I don't think that's ever going to go back.

To move further forward we need to continue to innovate. And of course, we can hardly keep up with the innovations now that are going on with technology, both with virtual learning, virtual avatar-based learning and the latest the AI ChatGPT movement. But it's another game changer, I think, in terms of how we practice, how we teach, how students learn. And we're grappling at what we need to do with it as it continues to evolve itself. It's like a very large ball rolling down a hill and it's moving faster. I noticed just in a brief search I did recently on PubMed that just in the last five months there have been 40 peer reviewed papers on ChatGPT and I've never seen anything like that before in medical education. Even including things like problem-based learning or case-based learning or new methods for interactivity. I've never seen the acute interest and response of the medical education community to a new technology like I have with ChatGPT.

David Gratzer: Have you used ChatGPT and what do you think some of the potential is here?

Ivan Silver: Well, yes, I have used it. Recently. I'm co-authoring a chapter in a book and more out of it being a little bit of a lark. We asked the ChatGPT the same questions we were asking the librarian. But in this case, we asked more. We asked for an outline of our chapter, and I had written this subject in a book about ten years ago. We were revising the chapter and basically the ChatGPT did a beautiful outline of my chapter because, my first chapter, because not much had been written, but we were both impressed with the with the outline and it actually raised a couple of other issues we hadn't thought of. But it was helpful. It was a tool. And when I look at now, it's potential for patient care, for medical records, for I think it has just fantastic potential for therapy, for being a doctor's assistant. And, you know, in the future, the future will bring it's not just going to be for a doctor's assistant. It will be at the level, I believe, within the next five years as a doctor's colleague. But the use of "colleague" will be a new term. There'll be a new new word for that, I suspect. So, and we're right at the beginning of all of this. And I think the future is now. But it will look very different in a year or two in terms of where this is going, I believe.

David Gratzer: We're speaking to the more general topic of CPD. And of course, you were the vice dean at the Faculty of Medicine at one point in your storied career. The whole idea has changed, right? I mean, CPD has moved from something passive, something that happens to learners, something where people, learners, I should say, have grown very empowered.

Ivan Silver: Yeah. And I think it begins in it doesn't just begin in medical school, but our secondary school population, even what kids are learning in primary school, how learning and teaching has changed there. My daughter's a kindergarten teacher and we often compare notes about the types of small group learning that's encouraged about the engagement with other kids. Not every kid's cup of tea, by the way, as about a third of kids are quiet and don't like engaging that way. And I think that applies right through. But, you know, we're encouraging the lifelong learning, the self-directed learner, the person. It's not enough to memorize facts and to look at knowledge from a recall point of view exclusively. It's the current medical education theories around adaptive expertise. And this field called Heutagogy, which is looking at being able to use knowledge in new ways and being able to be creative, being able to come up with solutions to problems. And I think kids are being taught that in primary and secondary school, it's being reinforced in medical school with case-based learning, it was with problem-based learning. And it's I think we have a different generation of younger practitioners who are likely more able to think on their own two feet. Knowledge is changing so rapidly that there's an even greater demand that physicians remain up to date.

I think we're very good on the knowledge base aspects of continuing professional development. Not so good on the skills. So, when was the last time you were observed and received feedback on your interviewing skills or even on your diagnostic skills? We assume that this knowledge accumulates, and it does. There's a there's a curve of continuing learning just from practice within 5 to 7 years of completing your residency. Thereafter, unfortunately, it's a downward progressive incremental curve into the time you into the time you choose just

before you retire. It doesn't really get better. And in order for it to, one has to make personal directed choices to update skills in areas that we right now don't have courses to do that. So, I imagine CPD in the future to include things like OSCE stations, OSCE-based CPD, where you come in for the day and you are continuously observed with feedback on some of the skill sets related to your profession, not just your knowledge of what to do, but your ability to apply it and to receive feedback on the application. And not many people at this point are willing to put themselves through that. They are so grateful for getting out of the residency program unscathed or relatively unscathed that they never want to go back to being judged or to being evaluated. And I think, you know, without it counting or this information going to the College, I think we are much more obliged to pay attention to our skill sets, which hasn't received the attention it deserves.

David Gratzer: You've pivoted to the future of CPD. So, one would be not just a focus on knowledge, but to think about skills. What other ways do you think CPD will be transformed in the coming years?

Ivan Silver: Well, I think the emphasis now on anytime, anywhere. CPD was not until recently largely an online exercise. It is now largely an online exercise. At the hospital I worked at, that you continue to work at, it is 80%. Or at least it was 80% online even before the pandemic. And so, it democratizes information. I would like to see it even more democratized. I would like to see the MOOC the ability for knowledge to be shared worldwide, but not a one-way conversation, a many faceted conversation between the receiver and the learner. So, I'd like to see information shared. The world is getting smaller and smaller so that we understand each other. And it's not it's not knowledge that and skills that are going on where we all have things to learn from each other. So, I would see I would like to see more of a world community of CPD than the local national focus that we have now.

I'd like to see the skills component developed. I think there's potential through virtual environments, through avatar-based education. I've had one experience of teaching at an avatar conference, being an avatar professor and sitting in front of my avatar students who were all like, there were real people behind the avatars, but we all this was a COVID conference of 3,000 people. We all showed up as avatars. I could make myself look 40 years younger, which I did, along with my co-presenter. And it was strange, but it was only strange because I'd never done it before. But it was effective, and it was playful. It was actually more playful than actually being there. So, I see the virtual environments as having – and especially with an AI machine learning component built into it where you are interacting with a with a machine or with an avatar that's been programmed – I see that both as an effective way of learning in your specialty, but also an effective tool that would allow you to practice with feedback that is necessary for learning. So, I see tremendous potential there that's yet developed.

David Gratzer: You've touched on traditional conferences. Now, the last time we spoke in a podcast was a few years ago, and you predicted that conferences will be replaced, not just virtual. And this was, by the way, of course, before the pandemic, but in terms of interactivity and you've touched on that now, is that how one facet of CPD evolves with time?

Ivan Silver: Yes. Well, that was an extraordinary event in the that was a century event. It accelerated something I could see already happening incrementally. But we're not finished. There will be I believe there will be. Unfortunately, if not pandemics, we're going to be facing climate change and the effect of populations moving out of necessity, into other countries that we've never seen before. There will be health demands that we don't understand yet. They'll have impact on the way we're educating people. It is like a domino effect. It's all going to affect us. And I think we need to be thinking because we weren't very prepared for COVID educationally, I think we need to be thinking, well, what how well are we prepared for the next pandemic? But look beyond infections and look at what else is going on right in front of our noses.

David Gratzer: What's one of the biggest changes you've noticed in education and medical education in particular over your career?

Ivan Silver: So in the space of my career, I've seen education go from not very valued as a career choice within medicine beyond your role as a clinician, to being not only very valued, very promotable, but also very supported with huge infrastructure and major centres of education within our own faculty of medicine. So, I think the move towards evidence-based education, the accumulation of knowledge about the best methods, but also with a real emphasis that I didn't see early in my career on theory, on theory-informed education, scholarship and research. And the theories like adaptive expertise, understanding what it takes to be a life-long learner and using theories and testing theories with appropriate educational hypotheses and studying the question at hand in light of whether it supports a particular learning theory or not. That is, you know, in the last 20 years a major step for all of medical education. I've enjoyed in my own career with an emphasis on professional development to see the emergence of faculty development, of the importance of maintaining the skill sets of our teachers, our educators, our education scientists. And that has achieved really a worldwide level of value and importance and support for both undergrad and post grad education. So, I was very fortunate to go along for the ride and maybe to contribute a little bit to it, but that's been very satisfying and very obvious.

What's right in front of us is for resident education and now in North America to include it for undergrad education is the emergence of CBME, the competency based. Which I think has its positive and negative features. The big positive for me is that finally residents are observed and must be observed in order to complete the evaluations. And that also the competencies and their descriptions are much clearer than learning objectives and are actually used on a daily basis. So that's the movement that's current. There will be another movement to follow it as education evolves, but I think largely it's been a positive one.

David Gratzer: Dr. Silver it is a tradition of *Quick Takes* podcasts that we close with a series of quick questions, a rapid-fire minute. Are you up for the challenge?

Ivan Silver: I hope so.

David Gratzer: No turning back now! We're going to put a minute on the clock and let's ask you some questions. You ready?

Ivan Silver: Yep.

David Gratzer: Dr. Silver, biggest prediction for the future of MedEd?

Ivan Silver: That it will continue to be important as a career choice, that it's going to continue to rapidly evolve, and technology is going to be its instrument.

David Gratzer: What keeps you up at night?

Ivan Silver: I worry in terms of patient care about the shift to consultation models for assessing and taking care of patients. And I worry that doctors aren't going to be taking longitudinal care of their patients going forward.

David Gratzer: A word of advice to our young colleagues interested in education and teaching.

Ivan Silver: Run towards it. Say yes. If you like teaching, if you like teaching before you went into medical school. And enjoy the interaction as you might with patients. You know, go for it. This is the renaissance period for health professional education. There's lots of support both in our own hospital, in our department, in our faculty and in organisations, both nationally and internationally. It's a great way to travel as well and to see the world through the lens of medical education.

David Gratzer: At the buzzer. One last question, one tip for those of us who may be thinking of retirement.

Ivan Silver: Talk to other people in the same period of their career. Join our community of practice at CAMH. Three of us decided to retire in the same year. Who are on the planning committee. That was no coincidence. It's because we had talked it out.

David Gratzer: Once again for returning guests, we thank you for making the time to join us for our conversation and congratulations on the retirement.

Ivan Silver: Thank you so much. This was fun and it's always a pleasure to talk to you, David.

David Gratzer: Oh, that's very kind. I always learn something from our conversations today. I took extensive notes. Thank you, Dr. Silver.

[Outro:] *Quick Takes* is a production of the Center for Addiction and Mental Health. You can find links to the relevant content mentioned in the show and accessible transcripts of all the episodes we produce online at CAMH.ca/professional/podcasts.

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