

Pediatric Telemedicine: Hype or Health?

Telemedicine has been around in various forms for decades. But is the promise of telemedicine more hype than actual health improvement? Can remote technology truly facilitate quality care? Are patients and families ready to adopt what can be perceived as less personal care?

Dr. Jay Portnoy answers these questions and discusses the growing role of telemedicine at Children's Mercy Kansas City.



Featured Speaker:

Jay Portnoy, MD

Jay Portnoy, MD, is the Medical Director of Telemedicine at Children's Mercy Kansas City and Professor of Pediatrics at the University of Missouri-Kansas City School of Medicine. Dr. Portnoy also is the interim Director, Division of Allergy, Asthma & Immunology. He received his medical degree at the University of Missouri-Columbia School of Medicine and he did his pediatric residency at Children's Mercy Hospital in Kansas City and his Allergy fellowship at the University of Michigan in Ann Arbor. Following that he returned to Children's Mercy Hospital. Dr. Portnoy has published numerous articles in peer-reviewed journals involving asthma disease management, environmental control and mold allergy. More recently he has been involved in use of telemedicine to deliver patient care and in evidence-based medicine and he is co-chair of the Joint Taskforce on Practice. Dr. Portnoy served as President of the American College of Allergy, Asthma & Immunology in 2008 and he currently serves on numerous committees both of the American College and the American Academy of Allergy, Asthma & Immunology as well as on the Allergy/Immunology Residency Review Committee of the ACGME. He also is vice-chair of MOC for the American Board of Allergy and Immunology.

[Learn more about Jay Portnoy, MD](#)

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Transcription:

Dr. Michael Smith (Host): So, our topic today is "Pediatric Telemedicine: Hype or Health?" My guest is Dr. Jay Portnoy. Dr. Portnoy is the Medical Director of Telemedicine at Children's Mercy Kansas City, and he's also Professor of Pediatrics at the University Of Missouri Kansas City School Of Medicine. Dr. Portnoy, welcome to the show.

Dr. Jay Portnoy (Guest): Hi. Thank you for having me.

Dr. Smith: I read that and this is a quote from Children's Mercy, "Telemedicine has been around in various forms for decades but is the promise of telemedicine more hype than actual health improvement?" So, let's start there Dr. Portnoy. What's your opinion? Is telemedicine hype or health?

Dr. Portnoy: Well, obviously, I think it's health. The evidence I have for that is a study we recently did where we compared a group of patients of asthma who lived in either Joplin, Wichita, or St. Joe, and they either had to drive to Kansas City and be seen, or they were able to be seen by telemedicine. We were able to demonstrate that their outcomes were the same, that they didn't do any worse and, in fact, most of them were extremely happy when they didn't have to drive all the way to Kansas City to get their care. So, I'd say health is at least as good.

Dr. Smith: Yes, but the technology's been around for decades, right? So, why now? Why is telemedicine growing in popularity today?

Dr. Portnoy: Well, the technology has matured. In the past, we've had the internet but the internet didn't have quite as many capabilities as it does now. Now we have the capability for real time video conferencing with high resolution cameras. We have digital stethoscopes. We also have digital otoscopes and high resolution cameras so you can look in the nose. You can do physical exam of the skin and you can even look in the eyes. I was looking at a fundoscope. It's amazing the kind of technology that's now available that can be used to take care of patients at a distance.

Dr. Smith: And all of that has really come up just in the past few years. So, maybe ten years ago, we didn't have the ability to listen to the heartbeat or look in somebody's eye, but today we're able to do that. What's the experience like for the patient? Why don't you tell us about that?

Dr. Portnoy: The patients love it, especially the kids. They see this robot, they laugh, they wave at it, and "I'm your computer doctor". They really like it. What happens when you're talking to a parent is that the technology disappears very quickly. So, initially you acknowledge there's a computer, there's a screen but then suddenly you're just talking to them and you don't even notice that it's at a distance. So, it really becomes very transparent. It's a window that allows the patients and the physicians to meet each other in cyberspace without having to travel physically these long distances that we have in Kansas and Missouri.

Dr. Smith: You've hit on some of the benefits, obviously, of telemedicine, of not having to travel long distances, for instance. Are there any other benefits you'd like to share with us about telemedicine?

Dr. Portnoy: The thing is that we have a very rural population in Kansas and Missouri. It's not just the convenience of travelling. It's the access to specialty care and most specialists choose not to practice in small towns in western Kansas, as an example. So, those people really don't have access. It's not fair. The equity is very poor. This allows somebody in Dodge City to have access to the same specialty care that somebody in suburban Kansas City would have. So, it allows people who need that kind of care to have access, to be able to see their doctor when they need to see him, and it really leads to improved health. It reduces cost also. So, many reasons why this is a huge advantage.

Dr. Smith: As you were implementing the tele-health services at Children's Mercy, what were some of the challenges that you faced?

Dr. Portnoy: Obviously, some of the challenges were regulatory. Insurance companies didn't want to pay for it. Legislatures didn't want to have laws that would allow it. You weren't allowed to see patients by telemedicine for a long time. That's changed, though, especially in the state of Missouri where we have

a legislature that is extremely supportive of telemedicine. They recently passed a bill that allows telemedicine to be in practice when patients are in a medical facility, but also in the schools. So, students can now be seen by telemedicine when they're at school. They don't have to leave to go to a doctor's appointment. They can also be seen in a hospital facility nearby. So, if I want to do an in-patient consult from one campus to another, all of the specialties are now able to do that. Also, we can do it at home. The patients can actually stay home and have a follow up appointment without having to travel to a doctor's office or a medical facility. Many things have now opened up because of the legislative changes. There's also an attitudinal change. A lot of people thought that telemedicine somehow was an inferior thing to do; it was a compromise. But, I think now that we're more accustomed to telepresence, to video conferencing and use of the internet, people feel more comfortable seeing their doctor this way. So, that barrier has slowly been evaporating over time.

Dr. Smith: Do you think also the fact that you're able to do truly a physical exam with some of the technology--you mentioned, looking into a child's eye, you have the digital stethoscopes--and do you think that's also helping to change the attitude towards telemedicine?

Dr. Portnoy: It changes the attitude but only because people have this misperception that the physical exam is a really important component of what we do. Most of what we do as providers, as doctors, is we talk to people and get a history and find out what their symptoms are, when they have them, and so on. The physical exam usually doesn't add much to my clinical decision making algorithm. People think it's so important because it's dramatic on TV, you see doctors doing it, but the physical exam really isn't that critical of a component. But, it was something that was absolutely essential to be able to do in order for this technology to be effective. I can't bill a patient unless I do a physical exam. So, that ability to see a patient and bill them and provide medical care was enabled by our ability to do this physical exam, even though it may not be the most critical component of what happens.

Dr. Smith: What specific tele-health services are provided at Children's Mercy?

Dr. Portnoy: Right now, we provide a real time telemedicine visits. So, you can have a clinic visit with your provider in a number of different clinics around Kansas and Missouri. That's one service that we provide so people can see their provider without having to travel long distances. In addition, we are now setting up a process where you can have in-patient consults done. So, if I'm at Downtown campus and somebody at Mercy South needs to see an allergist, I can see them by telemedicine. We also are setting up a schools program, so the patient can see a doctor at school. The parent doesn't have to leave work either, they can video conference in, we can have a three-way conference, and patient can be seen. Students don't have to leave school, parents don't have to leave work. We're also setting up a home visit program. So, if somebody is discharged from the hospital and you want to have a quick follow up to make sure they're doing okay, you can login to an iPad and see them that way. Our developmental behavior folks are seeing patients by telemedicine just using peer video conferencing because they don't need to do a physical exam. So, those are some of the things and we're constantly expanding the scope and range of the services that we provide using this important technology.

Dr. Smith: I'm speaking with Dr. Jay Portnoy. He's the Medical Director of Telemedicine at Children's Mercy Kansas City. Dr. Portnoy, where do you see this technology going in the future? What is the future of telemedicine?

Dr. Portnoy: I think telemedicine is a way of democratizing our ability to see our patients, so that somebody who lives in a rural community, someone who doesn't have access to a specialist can get the same access that everyone else has. It's a democratizing system. I see it expanding so that more and more practices in regions and patients have access to this service more conveniently. So, you can see your doctor any time you need to just by pressing a screen and talking to them, instead of, in the middle of the night wondering, "Do I have to go to an emergency room or what should I do?" You can get the answer when you need it. So, it democratizes it, it makes it instantly available, it's an on-demand medical care. It's what our citizens all want and it's I think it's what's going to lead to improve health outcomes for all of us.

Dr. Smith: Dr. Portnoy, thank you for the work that you're doing with the tele-health services at Children's Mercy, and thank you for coming on the show today. You're listening to Transformational Pediatrics of Children's Mercy Kansas City. For more information, you can go to ChildrensMercy.org. That's ChildrensMercy.org. I'm Dr. Mike Smith. Thanks for listening.

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