**Simulations in CSD   
April 9, 2020**

**Carol Dudding  
Mark DeRuiter**

**Mark DeRuiter:**

Welcome to this video podcast on simulations in communication sciences and disorders.

This is the first in a series of brief video podcasts that serve as a resource for our members who are using simulations in response to COVID-19. Today we will share information with you about what simulation can do and not do, the types of simulations that are available, and especially focusing on virtual and computer-based options-and identify resources for you for more information about simulation. Today we're speaking with Dr. Carol Dudding. Carol is a professor at James Madison University and she's the president-elect for CAPCSD at this time. She's presented and written on the topic of simulation for years now. She most recently chaired the CAPCSD committee that published the e-book, “Best Practices in Healthcare Simulations in Communication Sciences and Disorders” and that's a free resource available to all of our CAPCSD members on our website.

We're looking forward to kind of a casual conversation with Carol today and so Carol, I'd like to just kick it off and welcome you and have you tell us a little bit more about what brings us to this conversation and a little bit more specifics about your experience and training in this area.

**Carol Dudding:**

Thanks, thanks, Mark. It's good to be with you and it's good to be with everyone. Wow! This is certainly an incredible and unprecedented time in the history of our programs and certainly higher education. I am appreciative of this opportunity to share some practical information on simulations, and this is really intended for those who have little experience or no experience in simulations for student training. Because of the need for distance with the COVID-19 restrictions on our programs, mostly I'm going to give a general overview of of the pedagogy but most of this will be applied to our computer-based or virtual simulations. As Mark mentioned, I've been interested in this topic for a number of years and so just share some pointers that I've gathered along the way as well as some information from my friends.

So as Mark mentioned we're going to talk about what simulations can and can't do for us, especially in this really unique time in our programs histories. I’ll give a quick overview of the different kinds of simulations that are possible and probably most importantly give you some resources that I feel will be really helpful for wherever you are in this journey.

So this is probably the slide that I like to talk about the most, but I won't today because we're getting practical and that's the idea-that simulation is a technique-it's not a technology and it's meant to replace or amplify real life experiences with guided experiences that evoke or replicate substantial aspects of the real world in a fully interactive manner. So what does that mean? Essentially simulations are a learning tool-very similar to case studies or problem based learning or even research papers. So, this isn't so foreign to us-but to keep the idea that simulation is a learning tool and we need to think about the learning, most importantly, think about the learning that surrounds the technology and not so much about the technology. I think that's you know, that's something that folks who are thinking about simulations get intimidated by the technology and oh, how am I going to run this and I don't have a mannequin lab, but I think if we go back to its roots that it's a learning tool-I think that'll be helpful.

**Mark DeRuiter:**

Carol, yeah, I wanted to jump in here and a question for you and maybe it's a question for along the way, but you mentioned research papers and I'm wondering if you'll be touching on any resources today for research in simulation for our members-where they might be able to gain just a little more information about the efficacy here.

**Carol Dudding:**

We’ll certainly make that available on our CAPCSD website resources. We have a COVID response if you go to the web page and click on that and we have a number of resources. I'm happy to share the research. Actually, we have a really up-to-date research on simulations in CSD, our colleagues in Australia led by Ann Hill, just recently like this month published the results of their RCT on simulations. And the the news is good- all the evidence both within our field and outside of our field suggest that the learning outcomes of our students are similar, whether they receive their training through quality simulations and/or with live patients and actually, there's some benefits to simulations as well.

**Mark DeRuiter:**

Thanks.

**Carol Dudding:**

Okay, so again the brief overview of the different types of simulations. So standardized patients- and this is when you would consider using a trained actor and this emphasis on **trained** actor who's going to portray a patient or a team member in a very standardized realistic and repeatable way. So, this is more than just having students act as patients for one another while you practice giving the Western Aphasia Battery or something like that. So, we've been using standardized patients in our field for at least 20 years-can refer you to some information on that from Richard Drake, and so beyond that but that's not an option for us right now, right because we have to be apart from one another. So another two applications-I'll kind of link, block them- group them together somewhat for our task trainers and mannequins and we're probably most familiar with those as being part of a simulation lab. So, for those of us who maybe have medical or nursing Sim lab on campus, you know, the task trainers could be like an arm that people practice putting IVs in or you know a simulated ear in the case of audiology where you practice doing a cerumen management and all that kind of stuff and then we have the mannequins that are very high fidelity, high life, cost hundreds of thousands of dollars for the upper end ones and require a technologist to work them. So, we have all these different ranges again-probably not what we're talking about and considering today. Computer-based simulations and immersive virtual reality. These are both web-based. And so that makes them more applicable.

The computer-based simulation is represented on a computer screen and at the really built on gaming technologies and this- these most likely are presented as a virtual case studies and they could offer us some opportunities for diagnostic skills and also we have some resources on our webpage looking at some other online computer simulations related specifically to hearing. That while CAPCSD neither promotes nor endorses any one program, we do know-we are aware that currently in our field many people are using Simucase and that would be considered a computer-based simulation and then we have as an emerging area some virtual reality applications.

**Mark DeRuiter:**

Carol, as I look at this, I realize that our topic for today really isn't about standardized patients and task trainers, but I know certainly we've had some members asked us about the potential down the line use of these with tele-medicine-do you have any thoughts there?

**Carol Dudding:**

Yeah, actually the intent of what I'm sharing today is more on the pedagogy because there again if you think about simulation as a learning tool and a learning approach, we can really use it in almost limitless settings whether it's in a course, whether it's part of tele-medicine, whether it's part of your, you know to obtain hours clinical hours clock hours, which a lot of people are interested in-so there's the opportunity to do that and my see my belief my strong belief is that as long as we're really true to the best practices and the underlying learning pedagogy that we all know and we're all committed to that we're going to we're going to find new and exciting ways to use this beyond and actually that's one of my hopes and I know for other people who are interested in the potential simulation is that we will move forward as a program and this will kind of help us to jump forward in a way that we couldn't have anticipated but also, talking to people who are with interest in simulation some of my friends one of our biggest concerns and I was just talking to someone who said this is what keeps them up at night is that people will do this and won't necessarily do it with the learning practices in mind and then six months from now, we'll say ahhh simulations I tried it-it didn't work. So yeah, so that's exactly why we're here. So I'm glad you brought up that point.

**Mark DeRuiter:**

Yeah, and I think you can tell from my question right? It's really easy for us to get very far afield from a topic at hand when we think about what simulation is or can be and so it's important for all of us to think about containing the conversation to-to what's available to us and where we have knowledge and skill to move it forward.

**Carol Dudding:**

Yeah, and and the good news is again the good news is this is what we do this this training of students.

This is what we've been doing for years some of us started doing this when we had overheads- remember overhead projectors? and we'd have to write those on those little sheets and you know and make sure it wasn't backwards and around and you know, we've moved in the technology is moved with us, but what we know about reflective practice and and and clinical learning and practice and feedback still applies. So, yeah, so let's take confidence in that I certainly do.

**Mark DeRuiter:**

Yeah, thanks a lot.

**Carol Dudding:**

Alright. So again this these are the stages of simulated learning environment. That's what SLE stands for. Oh, and I want to thank I've pulled these slides together from some of the presentations I've done with other colleagues and this these slides no different. This comes from a presentation I did with Julie Estes. So thank you, Julie. But again, these are the stages of simulated learning experience. So preparation. So what are the objectives? What are we hoping to achieve by the use of simulations? Is it to get clinical hours? Is it to help them-and again, is it to help our students inter-professionally communicate? what you know, do we want our students to be able to give report to a nurse in a in a medical setting things like that.

So what are our learning objectives and how are we going to evaluate the outcomes-how are we going to know whether or not students succeed right? This these are again Mark. These are the things we do when we create a learning experience or assignment for our students currently.

**Mark DeRuiter:**

Yeah, and it really crosses over into clinic as well. Doesn't it?

**Carol Dudding:**

Absolutely and I think you'll find it here and on the pre-brief side. So this is setting the stage. We have to give the learner- in our case the student an introduction not only to the technology so you might have to say oh I want you to do in learning mode, assessment mode, you need to do this in this but we really want to share with them what our learning objectives and how they're going to be assessed. Is there a certain level of performance that's expected? What are they going to submit? What's expected of them during this learning experience? Again, Mark going back to our clinical education when we have students who are assigned a diagnostic to a diagnostic team. What do we do before they ever meet the client?

We bring them into our-we meet with them most of the time back in the good old days, we met with them in our office and we would go over these things and tell them what the expectations were and we would review with them what their approaches and what's their plan.

So again pre-brief same thing for clinical for our clinical services and then and then-and this might be a new way of thinking about this-and then we put the simulation in place then-it's at that time that the student then engages in this learning experience-simulation, whatever form it may take. So, this would be the equivalent to our student then doing the diag, you know interacting with our patients and doing the evaluation.

And then all importantly after the simulation after the after the student does the learning experience. What do we do? We debrief with them. We provide them feedback. We facilitate their own reflection, right the students come in. How did I do? How did I do? and then you know you as the clinical educator, Well, how do you think you did? and what happened here? And let's consider this. So again that becomes part of the debrief of a simulated learning environment. So again, just remembering this is what we do folks. This is what we do is part as clinical educators.

We just need to make sure yeah.

**Mark DeRuiter:**

Great, yeah, I think the debriefing seems so critical here and I'm guessing you'll talk about how the debrief also fits with certification standards and things as well today.

**Carol Dudding**:

Yep, absolutely. And so as you mentioned Mark debriefing is the heart and soul of any simulation experience. This is where there's a lots of research evidence again within our field and outside of our field-this is where learning occurs as part of the simulation experience.

The simulation itself again is the experience upon which we reflect and we learn from and it also offers opportunity for practicing some skills, but without the debriefing, it's just another activity but it is with the debriefing and we are required by ASHA standards. I'm sorry not by standards by the implementation language with ASHA-we are required to-to do a debrief debriefing has to be part of the simulation experience. And that's exactly and this slide evidence is exactly why that language is in there why it is required that we debrief with our students. Again, don't take my word for it, but study after study links the quality of debriefing with the with the positive correlated improvement in learning outcomes. There are methods to debriefing and there's a number of methods and we our next conversation together we'll be going over some of those specifically addressing some some that might apply for us in our current situations, but and students really appreciate and they really value these interactions, these debriefing activities. So really really important part of the process. So what we want to avoid and what we don't want to do for simulations is to just give a student an assignment and say hey go do this simulation a b and c and submit your score to me and then I'll sign off on your hours. Well, first of all that's in violation of the of the standards and the standards language rather.

But also it's just not good learning and it's just it's just really missing the mark.

**Mark DeRuiter:**

Thanks for that Carol because I think you know that is so critical and as as members, maybe you haven’t engaged with simulation at all. As a member starts to think about using something within a program and thinking about debriefing. Do you have a general rule or guide in your mind about how much time they would spend for planning debriefing and engaging in debriefing with a student or group of students?

**Carol Dudding:**

 I would say it's probably going to be very similar to what you would do if you were in the clinic with them so about this I would give yourself to at least the same amount of time. The other thing is you can we'll be talking about this. We've been at James Madison University-we've been using Simucase as one of the forms of simulations that we use and we've been doing debriefings and we're currently doing debriefings and we can you can debrief students in a group the same way that after that you can do peer advising with your students. So there's no need to just do a one-on-one and say, oh it's 15 minutes for that or this but I would again consider the time it that you invest in these activities in your face to face clinic and then plan accordingly and certainly at the beginning of this process-it's new for you to new for the students.

I'd give yourself a little bit more time because everyone just has to get used to the process. Our students currently are pretty used to this debriefing they have to do self-reflection as part of the debriefing as well. So, they're kind they're kind of used to this but at the beginning it takes everybody some more time.

**Mark DeRuiter:**

Thanks. I think that's important for all of us to remember with this and I know I've heard from several faculty who just started to get into this for group debriefing they found some challenges with maybe a strong student answering all the questions or making all the statements. And so, that's probably just another high point for us to be aware of as we start to move forward. How do we if we're working with a group of students-how do we set the stage for everyone to participate meaningfully?

**Carol Dudding**:

Yeah, and again that in some cases, you know solving these problems. I think we can go back and rely on our face-the good old days are face-to-face experiences because we've all had that to right you have the same three people who always raise their hand and answer the questions in class and how do you problem solve that and how do you manage that?

So again all really good things this isn't going to be without bumps and bruises and and missteps along the way but hey, it's where we are, right? And we're lucky at this point that we have some alternatives.

**Mark DeRuiter:**

Absolutely really important for all of us to think about the importance of these alternatives and I think as you said in the beginning of doing it well-so that post this pandemic we don't discount what a simulation can do for us in our programs.

**Carol Dudding**:

But also even beyond that certainly we want our student learning.

I know there's a lot of anxiety and interest and need to get our students graduated and to meet the competencies for graduation. But beyond that, you know, we are using our-our first year students are using simulations and again in our program, we did-they just happen to be a part of our curriculum, but that's a topic for another discussion.

But yeah, and so moving forward we want to we want to do well by our students because we want them to do well by those that they serve and again, that's where I put a lot of reliance on the research-research of others that is very significant and substantial and reassuring.

So I thought we would we said we wouldn't keep this too long and I'd share some resources for you. So ASHA’s site has a frequently asked questions regarding clinical simulation. And so you'll see the FAQs and they talk about documentation and how many and debriefing and how do you count-how do you determine how many hours the student gets credited and that type of thing.

So a lot of the questions that you have might be for you right here and right-again these change these standards were changed in 2016 I believe the change in language was made. So again, this wasn't done quickly or rashly, you know our move to simulation-I guess what I want to say-our move to simulation wasn't as quick and rash as perhaps it appears to some people. This has been something that that concerted group have been working on and very thoughtfully working within the CFCC have been working with for a number of years to get us to where we are. It's just kind of out there right now. But yeah, but as you said we want to do this well and we want to continue to have this as part of our program. So this would be a great resource. I would say definitely start here again that we-our nursing colleagues have a wonderful series on all these topics that you see on this graphic and they're all available and they're all free to us and they're just they're very practical guidelines about the different standards for how you do measurable objectives how you do evaluation, debriefing, pre-briefing. So an amazing resource. It's out there and you can find a lot of so if you're looking for continuing education and you see that it includes the discussion about the INACSL guidelines, I would say that would be a pretty good sign that-that you're going to get some quality information, but this is out there for us. And again, it's written for people who are just entering this area. So share this resource for sure.

**Mark DeRuiter:**

Thanks. I know. You know when you mention nursing I have several colleagues who teach in nursing programs and I certainly see how their use of simulation generally seems to be far ahead of where I see our discipline on a broad scale. And so I agree with you-excellent resource anything we see and find in there where we're not reinventing the wheel.

**Carol Dudding**:

You're exactly right.

You're exactly right and I know people are eager to see research in our field in simulations and the good news is it's coming Richard Drake’s been publishing pretty much on his own for a while- David Brown, Julie Estes, but there's also-can I plug the special issue coming up for TLCSD?

**Mark DeRuiter:**

 I think you can, yes.

**Carol Dudding:**

I think I just did anyway, the Journal of Teaching and Learning in CSD.

We've been planning Mark what since last fall?

**Mark DeRuiter:**

I believe so, yes.

Yeah. We have a special topic issue in on research in simulations in CSD and we got a really strong response. We had over 20, I believe we had 20 manuscripts submitted for that issue and that issue should be ready to go in October. So again, to let you know that this isn't just a new kind of thing we’re just grasping at this is something people-serious people-have been working on and doing serious research in serious ways. So that will come about. Another free resource that was completed a couple of years ago is-this is a CAPCSD resources. And again, it's the best practices document. It's an e-book. It's free. It's available to you from the CAPCSD website. I was lucky to be part of that task force and made some wonderful friends in David Brown with Audiology and David has published books on the topic of simulation, Julie-

down at the University of South Alabama is doing amazing things in the mannequin labs. Carol Szymanski was both a academic before joining Simucase full time. So she brings that perspective and I've mentioned a couple times my friend and colleague Richard who's been doing standardized patients and he has a new updated research that's going to be included in that special topics issue.

So really excited and appreciative of all these people hey, and these are a great group of people also if you just want to reach out to and you can tell them I sent you then I'll have to I'll hear about that later. But you know, and if you just have a really specific questions on their area of interest, but they we've all contributed to this white paper. I think it's 30-something pages long. So there's a lot of information in there for you.

**Mark DeRuiter:**

And given the situation I think calling in some favors. A good thing right now.

**Carol Dudding**:

Yes, yeah.

**Mark DeRuiter:**

We just might need to do that.

**Carol Dudding**:

Yeah. No, we are good hearted group as a profession. We are good-hearted and giving and that's what I love so much about my career. So yeah, no doubt. Again, this isn’t a promotion or endorsement for Simucase-but if you using it read the manual or at least the FAQs, sorry, the image is didn't come out so well, but they have very specific FAQs on their their simulations and how they've interpreted how they've been built why they and what their recommended guidelines and there's also again a free user guide. You just need to go in you can get that without signing in so even if you're not using Simucase, I’d suggest these resources to you because they're there and they're available and they're available for you.

And lastly, we as your CAPCSD Board-we are here. We are. We are here to let you know how to let you to share information and updates that we get but we're also here to serve you. So we have some opportunities for you to participate with us-to join us in the conversations and we again, we're just we're here for that - the next as I mentioned the next planned video podcast- is will be on debriefing and then we'll talk on the last one will be talking about the little the real logistics. How do we assign students? What documentation is required? How are we tracking hours? That'll be a lot of sharing in that as well. Mark, what have we forgotten to cover? What have I forgotten to cover?

**Mark DeRuiter:**

I think you know, we've got many great things planned here and as I'm our member programs can understand we want to get these things out to you quickly and so we won't be able to offer continuing education units for the types of information that we're offering just because we want this process to move along as quickly as it can-so keep that in mind and then what we'll be doing is is certainly blasting out information as our video podcasts are available to member programs. We also have our CAPCSD community conversations. Carol, do you want to talk a little bit about how those conversations are set up and how a member of CAPCSD might engage with that?

**Carol Dudding**:

Sure. Yeah, we've set up it within our CAPCSD conversations which are our discussion boards. And so Deborah would want me to make sure you all know individual we have program members but individuals now can need to go in and sign up for their own account through the CAPCSD site so that they can participate as individuals within these community conversations, but this is our discussion board and we've set them up specifically around simulations in Speech Pathology and Audiology and also with clinical hours. We have a topic on admissions.

We also have topics on distance learning and things like that and we've-it’s kind of to keep the chatter perhaps keep the focus. We've also each of our board members has volunteered to moderate and/or facilitate some of those discussions so we can again keep a pulse on what's going on so that we as a board in an organization can can respond.

**Mark DeRuiter:**

Thanks a lot. I think that's a great way for individuals to engage and start to share information about what's working and where the points of challenge are for them. There's also going to be a survey moving forward to our member programs. And I know you've had a great hand in crafting that survey where we'll be looking to our programs to tell us more about impact and areas where we might be able to provide more support. So that will be coming out in a blast email. Are there other thoughts there Carol as far as timeline or how many people from our program we expect to respond things like that?

**Carol Dudding:**

Well, we're hoping everyone responds it'll be sent to the program directors, but I think really importantly and Deborah reminded me of this-that we will also be sharing these results with our membership so you can get a sense of what other people are doing. And how are they handling this this really this crisis and transformation in higher education.

So there's oh, you know, we heard a lot over the last several weeks. We're all in this together. We're all in this together and certainly that that is true. I believe and I might be wrong on this. I believe once it's launched will have until the 24th or so and I might be wrong on that of April. We want to get we want it out quickly. We want to get the results quickly so we can act upon it quickly.

**Mark DeRuiter:**

Thanks, and you know, the other thing that your CAPCSD board is doing is we've obviously had to cancel our conference this year, but we have been looking to move forward with select topics as webinars, especially if you think of a just-in-time kind of format, so pulling together areas and information that we know our members really need.

Some will be offered for continuing education units some may not be but we will also be blasting out about those opportunities for our members to have a good understanding of what will be available. I believe within about the next month. So today we're looking at right around April 9th. I think in the month of May will be able to do Council on Academic Accreditation and Council for Clinical Certification Standards.

And so those will blast out about those if you aren't receiving emails make sure to check with a colleague and go to tip to the CAPCSD website to set up your individual account to make sure you're getting all of the most current information. Carol, it's really a pleasure to talk with you today and help us kick off. I know that there are so many other questions out there, but it's really great to think that we are kicking this off and that we're moving to a session on debriefing soon that our members can learn more and and engage in think more but I think at the moment for those who are not engaging in simulation, you've given great food for thought. Do you have any last thoughts here or are we ready to sign off?

**Carol Dudding**:

Well, I just wanted to explain the pictures that at the beginning and the end.

I think I did that. This is when we were down in Orlando this past ASHA conference. I went to Top Golf now I do not play golf. I do let me just say I do not play golf but a big lesson that I learned. So this is a picture of me playing golf at Top Golf which was a lot of fun. But so a big lesson I learned and what I heard from my husband who's a huge golfer-repeatedly- was keep your head down and keep your eye on the ball. Keep your head down and keep your eye on

the ball and I think for this time that's a really important reminder for all of us. So, thanks for everybody for your time.

**Mark DeRuiter:**

Thank you Carol, that is a great reminder and a great framework for us as we move forward, and I look forward to talking soon. Have a great day.

**Carol Dudding:**

Thanks. Bye.