Kessler Institute for Rehabilitation 8th Annual Stroke Conference: Part 5 of 8 Impact of Communications and Hearing Impairment

Recorded October 2019. Listen to it here.

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PAMELA TAMULEVICIUS: 00:04 Do we put it on our patients to be the advocates and say, "I'm not understanding this?" Or do we put it on ourselves and say, "What is our role in ensuring that what we're communicating is being understood?"

ANNOUNCER: 00:19 Welcome the eighth annual stroke conference. Breaking Barriers: There's More to Getting Home than Walking. In this podcast, Pamela Tamulevicius of Kessler Institute for Rehabilitation presented Disability Disparities: The Impact of Communication and Hearing Impairments. For more information about Miss Tamulevicius read her bio in the program notes. This conference was sponsored by Kessler Institute for Rehabilitation and was a one-day event that provided participants with an understanding of the multidisciplinary approach to rehabilitation that enables stroke survivors and their families and caregivers to rebuild their lives. Discussion will focus on communication, motivation, spatial neglect, sleep issues, bowel and bladder management, and community integration.

TAMULEVICIUS: 01:17 Today I'm going to discuss the impact of communication and hearing impairments on a person's access to quality care. I'll list some of the long-term impacts of disability disparity and apply some interprofessional strategies to address disparities due to communication and/or hearing impairments. So how I came up with this lecture topic idea and why we brought it to this conference was recently ASHA Leader, which is a magazine for speech-language pathologists, had published two articles. One on hearing disparities and one on communication disparities. And really, highlighting the impact that those two disorders can have on the long-term effects of our patients and what does that look like to all of us, because we're all responsible for ensuring that our patients are able to get the care that they require. And ASHA's vision statement is making effective communication, a human right, accessible and achievable for all. So part of the role of speech-language pathologists and audiologists is to make sure that we are looking at environments and educating our professional partners and maintain this right for all of our patients. You'll hear this as well as we go through, trying to make it more personal because our patients are persons and there's more to that than just being able to make a health care decision.

TAMULEVICIUS: 02:44 So I was recently in Spain and I was in a taxi, and I went with my aunt and my aunt is fluent in Spanish and so she was having a conversation with our taxi driver. Now, I do not speak Spanish. I took some high school Spanish. I know nouns. No verbs. I can't converse at all. And so as we're in the taxi, my aunt and the cab driver are talking and they're laughing and I thought, "What if I laughed at the same time that they laughed? What would happen?" So as they're talking, I began to laugh or I smiled. Pulled out all of those speech therapist tricks to really say that, "Hey, I was following this conversation." And we got out of the cab, and my aunt goes to me, "I knew that you knew more Spanish than you said you did [laughter]." And I said, "No, I absolutely had no idea what anybody was saying. I just laughed when I thought it was appropriate. I groaned when I thought it was appropriate." And I thought, "Oh my

gosh. How many patients smile when it's appropriate, laugh when we laugh, groan when we groan, or go with the flow without really speaking up and saying, "Yeah, no hablo español." And I thought, "Okay. Well, do we put it on our patients to be the advocates and say, "I'm not understanding this?" Or do we put it on ourselves and say, "What is our role in ensuring that what we're communicating is being understood?" So as we go through this today and talk about hearing and also communication, really thinking about that effect and that impact.

TAMULEVICIUS: 04:34 So to start, the burden of stroke. So someone in the US has a stroke every 40 seconds. Someone dies of a stroke every four minutes. 7.2 million Americans over 20 years of age have had a stroke. 3.4 million US adults over the age of 18 will have had a stroke by 2030. Huge numbers. And the problems? High cost. Challenges with communication across systems of care. And then this last one. Prevention, treatment, and recovery. Functional outcomes for stroke survivors. And as you heard in the lectures earlier today, really what is happening internally? What's happening in the acute care hospitals, in the rehabs, in the nursing homes, and then back when patients go home that's keeping them home? And there's a real challenge there with keeping patients at home. And so today we'll talk about the impact that hearing and communication have on that, keeping patients at home. But because I said I would be funny occasionally throughout this, we're going to look at some misheard lyrics. So on a dark desert highway, Cool Whip in my hair. Who knows the song? Yeah? Who wants to sing it [laughter]? No? No karaoke right now? Okay. Oh, sorry.

TAMULEVICIUS: 05:54 All right. Hearing loss. 15% of Americans aged 18 and older present with some form of hearing loss. Those with a hearing loss, and this is in the research, are more likely to experience arthritis, cancer, stroke, cardiovascular disease, diabetes, emphysema, high blood pressure, falls, mental health issues, and difficulty with cognitive functioning and activities of daily living. Those with a hearing loss are more likely to be hospitalized and readmitted within 30 days for that same condition. Why? They report poor communication and satisfaction during medical care encounters and have higher health care costs. An individual with a hearing loss will cost the health system $22,000 more over 10 years because of the associated medical comorbidities. So hearing loss is a chronic condition. A chronic condition that is expensive to treat. Does anybody know what the average costs of a hearing aid is? Between one and seven thousand dollars. And that's for one. We have two ears. And think localization-wise, being able to really take in that information. 15% of patients over the age of 50 that require hearing aids wear a hearing aid. Unbelievable. The access to hearing aids. Being able to know that you have a hearing loss and having that diagnosed.

TAMULEVICIUS: 07:44 Imagine hearing only part of your medical team's care instructions or description of a procedure and then being asked to make a decision about your care. Who here has, just in general, had a conversation with a friend and your friend says something and you didn't quite get it but you say yes anyway, right? Why not? They're not there to harm you because you trust them, right? But you don't really know. So what are we doing as providers to make sure or to ensure that our patients have access to this? Interventional audiology. So at the University Pittsburgh Medical Center, they had identified that many patients that were coming in with an undiagnosed hearing loss

were coming in and having difficulty hearing. So what did they do? They purchased headset amplifiers. They range about $70 or so, give or take, depending on the quality. And they are free access. So every patient that requires one gets one. And at first, some of the providers were concerned. They didn't know how this would impact their conversations. What it would look like.

TAMULEVICIUS: 09:02 For those of you that may work with headset amplifiers, sometimes you have one for the whole clinic. So it's only being used in that interaction. Not in the interaction with the rehab aid or nursing aids, out on the floor with their family, incidental housekeeping coming in and asking a question. All of those other modes of communication that occur. And what was really fascinating, or that I find fascinating about what UPMC did, was when a patient is issued a headset amplifier that is theirs to keep. And their statement on that is, "We don't ask someone to pay for us to make the curbs accessible. Why are we going to ask someone to pay to make their care of hearing somebody accessible?" Phenomenal.

TAMULEVICIUS: 09:52 The environment. What does our environment look like? So several hospitals are now looking at their environment to ensure that the lighting is appropriate for someone with a hearing loss. That noisy environments are being understood. That when we're in an environment, we're looking around and taking into account all of the noisy things that could be in the room. The IV. The beeping heart monitor. Oxygen piping in. It may not sound that loud to us or benign to us, but if someone was to shut that off, we would hear it. Or is the person with a hearing aid reclining back in their bed with the hearing aid against the pillow? Again, muffled sound. Also, when patients come into the hospital, what do we usually ask them to remove? Their valuables. And I would say a hearing aid, at one to seven thousand dollars, is pretty valuable, and is often removed. So automatically, we're removing the point of their hearing. So thinking about those pieces.

TAMULEVICIUS: 11:05 ASL interpreters. So there was a hospital system that had identified that ASL interpreters were not being accessed as quickly as they needed to be accessed for the patients when they were coming in. They had a large deaf population, and so what they did was they began to increase the signage around the hospital, "You have access to an interpreter." Which we all know is in our patient rights that all of our patients receive. But also what they did was they made the EMR more accessibly read to clearly state what type of interpreter or preferred language their patients had. And that actually resulted in an increased use of ASL interpreters. And so what we all know is, the more we use it the more we as providers become comfortable with it and the more we'll implement that for use. It's very similar to someone that comes into the hospital that requires an interpreter for another language. Unless you've done it before, it's uncommon. It's not something that we always do. So making it and creating a natural part of our process.

TAMULEVICIUS: 12:10 Also, teaching health care providers good communication. It sounds silly, but we're always in a rush. We always have multiple things to do. So good communication. Teaching eye contact. Face the person. Check for understanding. And not just say, "Did you understand?" Because, of course, someone will say, "Yes." Actually saying,

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"What did I say? What would I like you to do?" Having them repeat that back. It's good for checking understanding for the hearing purposes as well as cognition and language. What else we can do is we can also advocate for hearing testing. 30 million people by 2060 will have a hearing loss. Hearing loss is poorly captured in medical records. In a study that was completed, just of 100 charts-- so it's a small N. A study that was completed of 100 charts, 36 of those patients on audiometric testing presented with a hearing loss. Less than 40% of those charts had hearing loss identified in the chart.

TAMULEVICIUS: 13:15 And hearing loss, there is an ICD-9/ICD-10 code for it, but the most used code is hearing loss unspecified. And so the impact that has for insurance and for research, all our research then is based on those that one could afford a hearing test or hearing aids. So it's identified upon admission to the hospital, or it's based on those that had someone that actually would document it. So it's changing our population, then that we're researching and that we need to support. Also, providing education and workshops. So looking at hospitals and seeing, "What are we all doing in all of our health care settings to ensure?" So that in kind of a tight nutshell is hearing loss. We're going to be continuing on with communication disorders, but you will see how many of the strategies and interventions related to communication disorders and promoting access would also relate for hearing impairments. But I feel like we need something funny again, so. She's a good girl, loves her llama. Loves Cheez-Its and asparagus, too. What's the song?

AUDIENCE: 14:27 Tom Petty.

AUDIENCE: 14:29 [crosstalk] [laughter].

TAMULEVICIUS: 14:33 I mean, we could all sing it, if you'd like. No? Okay [laughter]. We're being recorded for a podcast, so we shall [laughter]. All right. Communication Disorders. So 10% of the US population has a communication disorder. Low satisfaction with health care and patient-provider communication with those with communication disorders. And, and this is the key, patients with communication disorders were three times more likely to experience adverse medical events during a hospital stay. So we have those with a hearing loss having higher readmission rates and those with communication disorders having three times more likely to experience these adverse medical events. And for those of you that are familiar with Joint Commission - most of us? All of us? Joint Commission has position statements, specifically on medical communication to ensure that we do not have these adverse events or miscommunications. What are the challenges related that create these miscommunications or these adverse events? So we all work in a fast-paced medical environment. We have fast-paced medical appointments. Trying to get patients in, get patients out. Unfamiliar people, locations, terminology. Also, erroneous assumptions on the part of the health care provider regarding patients' abilities. And a lack of knowledge by health care providers regarding on how to interact with this patient population. And we'll talk a little more about that. There's a theory that's based off of this.

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TAMULEVICIUS: 16:13 But why is this important? Well, because provider and patient communication is essential to our ability to promote health promotion, clinical assessment, and patient autonomy. Patient outcomes are improved when care providers use communication to express concern and commitment. A challenge is there's often a focus on speech for communication with limited use of nonverbal communication. One item that came up in some of the research is that clinical care providers have difficulty engaging patients with aphasia - which we know talking about stroke is a primary disorder resulting from stroke, 40% of patients - leading to discrimination on stroke services and poor long-term outcomes. So many of our patients, when they're discharged, [the hospital, us at skilled nursing facility?], when they go home, they're hopefully going to return back to a stroke clinic to continue to be followed and to ensure that their outcomes are being managed. And so if they're not able to make that appointment, or they don't understand the impact or importance of that, already we're starting them out with that.

TAMULEVICIUS: 17:34 So some further research into this looking at really, what is the impact, then of aphasia and communication disorders on a patient. I came across this nursing article that was talking about the theory of Human Scale Development and aphasia, and it talked about the nine fundamental human needs. So those fundamental human needs that we all have and that we all need is freedom, creation, identity, understanding, protection, leisure, participation, affection, and substance. And then the article states, "Patients have reported that health professional's focus on physiologic experiences rather than the psychosocial impact," which is huge. I've anecdotally had this conversation-- since I read this article and really started thinking about it, I've had this conversation with some of my partners, some nurses, some physicians, and said, "I always felt like I made a great connection with my patient." But then the further I thought about it, I was like, "Well, on admission I usually ask a lot of personal questions, really get to know them, but then we get into treatment mode and we are busy with treatment. We are busy with providing care. And I don't know if I've always 100% of the time thought beyond that because I'm doing my job." But I wasn't doing my job.

TAMULEVICIUS: 19:09 The impact of aphasia on fundamental needs. So having this communication disorder impacts a person's autonomy. Being able to state, "No, I don't want chocolate pudding or no, I don't want to go home with my son." Expression of choice. Asserting rights and control. The inability to express self. How often do we ask our patients, we ask them their goals, but what are your ideas? What are your thoughts? How do you expand beyond this? And we're having trouble with the video, so I took it out, but there was a video of Gabby Giffords. Does anybody know who Gabby Giffords is? So Gabby Giffords is a previous Arizona senator who was shot probably eight years ago. And her husband John Kelly - Mark Kelly. Thank you - is an astronaut. He was very supportive of Gabby's recovery. And she presented with aphasia and went through months and months of therapy, and had top-tier therapy. And in this one interview about seven years down the road, she's sitting with Mark on the couch and they're talking, and they talk about the impact that had on their relationship. And Gabby, who was independent, outspoken, fighting for their rights said, "Sometimes I have to

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look at Mark for him to fill in my words." And is Mark really filling in Gabby's words? I mean, they may have a close relationship but no one knows your own thoughts. And so the impact that must have on Gabby's ability to be the person she is and be able to speak those, and if no one's asking her those questions, how do we identify that? So thinking about that with my patients.

TAMULEVICIUS: 21:09 Feeling of isolation. Loss of confidence. Intellect and cognition are hidden. There's difficulty asking for support. Difficulty expressing emotion. Difficulty expressing affection. Okay. A little humor again before we get into the deep stuff. We built this city. Oh, sorry [laughter]. I'm a speech therapist, not a singer. We built this city on sausage rolls. And you can purchase this pillow on Etsy in case anybody's in the market for a holiday gift.

TAMULEVICIUS: 21:42 All right. Communication accommodation theory. So individuals often adjust or accommodate their communication on a basis of assumption. So based on who you're speaking with, you may increase your volume. You may speak slower. You may change the terminology you're using. So how do we see this often in the medical setting? We see that we change the terms that we use, right? We use layman's language. We also would change the language we use and use preferred language by adding an interpreter, or if someone spoke multiple languages, speaking in the language that's preferred by that patient. But there's times when we either overdo it or underdo it. And that's the concern we have with those with communication disorders and also with hearing disorders. Who hear has been told by a patient-- an often overaccommodation is you walk into a room and you see an elderly individual and you automatically speak at a higher level voice, right? And so for that day you've got 10 patients that you're seeing, and so every room you're going in, and I'm not going to do it because I'm miked, but you're at that 90-decibel level, "Good morning blah. How are you today?"

TAMULEVICIUS: 23:00 Who here has had a patient say, "Could you speak a little softer?" No one? Oh, okay. A couple of people. Thank you for being honest. Not that you all are. It's happened to me because you think back-and-forth. Well, that's what happens with our communication accommodation. Sometimes we can overaccommodate. We assume and we speak louder to older patients because of that assumption. Or we under accommodate. We have a patient that has failure to recognize and change communication. And I can think of a non-fluent aphasic patient. So here's an individual that has single word responses, has difficulty accessing words, and someone walks in and asks an open-ended question like, "What did you do in PT today?" Before you even know it, you've reduced your chances of good communication. It's our job to understand that bias that we have and what we're doing. So choosing appropriate accommodations begins with recognizing one's own bias.

TAMULEVICIUS: 24:11 The other thing that will improve successful communication is successful accommodations require a two-way exchange, in which communication is brought to the forefront as a topic of concern, and all involved parties agree to signal communication breakdowns and to adjust accordingly when they occur. And that's

tough because in natural conversation with your friends, if you don't understand something, you may kind of go with the flow or eventually you'll come around to it because there's enough other information being said. But it's not natural for us to say, "Wait could you repeat that?" Or, "I didn't understand that." Or, "I don't think I'm understanding what you're saying." And with our patients, that's something that we should consider building. That ability to say, "If at any time you don't understand what I'm saying, or I don't think that what I'm saying is coming across in a way that you understand or a manner in which I want you to receive it, we're going to try again. We're going to stop what we're saying, and we're going to rework this." It will go so much longer than having a long conversation in a room, leaving it, and the patient looking at their family member and saying, "What just happened?"

TAMULEVICIUS: 25:28 There are two frameworks that we're going to talk about. The first framework is the SEGUE Framework and this framework is how all medical interactions should occur. It's a framework that sets the stage for why we're having a visit or why we're meeting. Eliciting information. What are some of the experiences that a patient is having, and giving them time to talk. And then it's the medical providers' opportunity to give information. And then we have to give the opportunity for the patient to give us their perspective, their choice. And then we end that interaction with the follow-up. What we expect next. What the next steps are. So it sounds like a fairly simple framework, as long as the communication is there. Knowing that the communication may not be there, there's this idea to use something called framing, and this could be just implemented right in with the SEGUE Framework. And we'll go through this.

TAMULEVICIUS: 26:29 FRAME. Familiarize with how the patient communicates before starting a medical interview. Reducing rate and slowing down. Assisting with communication and actively helping that patient to communicate. Mixed communication methods. So show, don't tell. So not only using that verbal communication but engaging, writing, drawing, gesturing. And engaging the patient first. So that comment I made before about when we walk out of the room and the patient says to the family member, "What just happened?" There is a tendency on the health care providers part that when they're talking with someone that they don't think is understanding they'll speak to someone else. And I've experienced this. I've been in the room, and the doctor is talking to someone that is not giving those nonverbal, "I'm understanding," cues. And before I know it, the person's looking at me because I'm being a speech therapist and highly engaged. And so, of course, they'd want to then talk to the person that's giving them the feedback that, "Yes, I'm understanding," but they shouldn't. We really need to be focused on the person that's receiving the care.

TAMULEVICIUS: 27:39 So here's a brief comparison of two communication disorders. So aphasia, which would be due to a stroke, and then dysarthria, which is due to, in this case, ALS. Dysarthria can be due to a stroke as well. So the definition of the disorder. Aphasia is a language impairment affecting the ability to encode and decode language. Dysarthria, in this case, is a motor speech impairment affecting strength, speed, timing, and coordination to a varying degree. Now, why it's important that we look at all of these characteristics below is because the strategies that we implement for communication disorders and hearing loss are not one-size-fits-all. We have to be

understanding of all of these different areas based on what we then would implement. So if we notice in both aphasia and dysarthria, cognition is intact, unless there is a lesion in an area that would affect cognition. But for this case, we're going to make it very simple. Aphasia. Dysarthria. Hearing acuity, both intact unless it's affected. Again, we're just going to keep it separate.

TAMULEVICIUS: 28:51 Ability to understand what is said to them. So in aphasia, here's where it can be impaired to a varying degree. And many of us are familiar with all the stages and types of aphasia. Dysarthria, intact, unless affected separately. So here's where we start getting some of those differences. Ability to put thoughts and words into sentences. Impaired in aphasia. Intact in dysarthria, but impaired execution. So that the want is there, the ability is there, it's the execution. The speech intelligibility. Ability to move speech muscles to produce sounds and words. Intact in aphasia. Impaired in dysarthria. Ability to understand what they've read. Impaired in aphasia. Intact in dysarthria. Ability to hold a pen and control muscles for writing. For aphasia, it will be intact unless affected by associated hemiplegia. In dysarthria, not related to the speech problems. So this would, in this case, be related to the ALS that they may not be able to hold a pen.

TAMULEVICIUS: 30:01 But just looking at this already thinking about, "What can I do to help strengthen my communication?" So for that person with aphasia knowing in that first time that we meet and we're setting that stage I'm going to want to know, how much do they understand? Maybe I'll start with some basic yes-no questions. Ensure that we have a yes-no reliability. Then, I'll start with some simple commands. And not commands like, "Touch your nose," but just general conversation commands. "Take the paper." Things that I can fit naturally into my conversation to build a relationship. Ability to put thoughts into words and sentences. Again, asking some simple questions I can begin to hear their fluency. For the patient with dysarthria, I'm going to ask them a question, and I want to hear, so I'll ask an open-ended question. And if I am not able to understand what they're saying during that, I'm going to say, "Can we use writing? Can I bring out a communication board or an alphabet board just to ensure that I am fully understanding everything that you want to say?"

TAMULEVICIUS: 31:08 So here's how it would look as we implement it through the SEGUE stages. So in that first stage, we're setting the stage. We're establishing a rapport. We're setting the agenda. We want to learn how the patient best communicates. We want to know is there a communication device? And then importantly, we want to establish a reliable method for comprehension and expression. Eliciting information. So this is our goal to obtain health information and concerns and allow time for patients to talk. So we can with our patients with aphasia replace open-ended questions with multiple choice or yes-no. Encourage the use of gestures and writing. And same for dysarthria. And then at the end, we want to verify that we've understood what's been said and summarize the points. And a great strategy to use here is, as we're summarizing what a patient has said to us, we write it down on a piece of paper in simple words. Because, as we continue on with our conversation, the patient can go back and self-point to those important words that came directly from them during that conversation.

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TAMULEVICIUS: 32:16 Give information. So when we're explaining a diagnosis and when we're explaining treatment options. We want to slow down our rate of speech. We want to supplement what we said, again, with writing and diagrams and verify the patient's understanding. And that's for both aphasia and dysarthria. And then understanding the patient's perspective. So using keyword writing and gestures to supplement the patient's words. So this is again where we can reflect upon what we've already written down. And then for that patient with dysarthria suggest using writing or a communication board. And then as we end the encounter, we're going to review the plan and the next steps and check if the patient has any concerns. And here's where we're going to make the real, big impact on those adverse medical events and preventing those readmissions because this is where we're going to make sure that the education and the conversations we just had were received and that there will be follow-up. So our accommodations for aphasia, making sure that we have written down what we're going to do. Providing it in an aphasia-friendly written manner. And recognize that all targeted tasks may not have been completed and to ensure that you've already scheduled additional time to have that next meeting. And for our patients with dysarthria, again, providing that written information for them to take home.

TAMULEVICIUS: 33:36 All right. Oh-oh, here she comes. Watch out, boy, she'll chew you up. Oh-oh, here she comes. She's an anteater. You can find these all on Google and send them to your coworkers. I do. Well, when someone's having a bad day it's nice. You get an invisible high five and a meme. Okay. Family members and caregivers. So we've talked a lot about the patient and ensuring that our communication with the patient is understood. But then there's this other piece that I didn't want to neglect and this is the relationship. So family members and caregivers are such a large part of why our patients are able to return back to their homes and stay home. But there is disability. So disability caused by stroke has a significant negative impact on all close family members. It can result in guilt, fear, stress, and fatigue. Some negative changes that may appear are worry due to increased duties and financial strain. And this is identified actually as a third-party disability. And I'm sure many of us have seen this. Even if it's a patient that's come in two or three times family is wiped out. But there's also positive changes. There's an appreciation, a learning, and an increased tolerance. And I know I see this personally. I also teach at a college, and when I ask the students that are future speech-language pathologists, "Why are you becoming a speech-language pathologist?" 9 times out of 10 someone in their family has been affected. Had OT, PT, nursing, and physician. Had speech, and that's how they found themselves into their career. How many people in this room found yourselves in your career because you knew someone that received help from a health care provider like you all are? So, many. You're not raising your hands, but it's okay. I know most of it's true [laughter]. It's all right. High on participation. No [laughter].

TAMULEVICIUS: 35:37 So relationship building and kindness. It's important to understand pre-stroke identity and interests. Personalizing our communication builds so much more. Creating environments that meet the needs. And understanding that there's a desire to communicate rather than a need to communicate. It's not just asking, "Do you have

to go to the bathroom?" But asking, "Hey, how was your day today?" And where there is compassion, the isolating effects of aphasia or albeit communication disorders are reduced. Successful relationships and effective communication depend on compassion and can, therefore, exist regardless of whether verbal interactions take place.

TAMULEVICIUS: 36:24 I've provided a few resources from the National Aphasia Association and the Aphasia Recovery Connection. The Aphasia Recovery Connection actually has Facebook groups for both those patients with aphasia and those caregivers. The American Stroke Association and ASHA, the American Speech-Language-Pathology Association. Before we go. Sweet dreams are made of cheese. And our takeaway. So hopefully, what you'll take away is that making effective communication is a human right, accessible and achievable for all. Those with a hearing loss are more likely to be hospitalized and readmitted within 30 days. So thinking about what accommodations are available and have we provided the necessary education to the patient, family, and providers? Those with communication disorders are more likely to experience adverse medical events. So thinking about those acronyms, SEGUE and FRAME for effective communication and trying to implement some of those strategies. And remembering always that successful relationships and effective communication depend on compassion, and therefore, can exist regardless of whether verbal interaction takes place. And so with that, I'll leave you with a quote from Maya Angelou, which was actually written specifically for nurses. I've learned that people will forget what you said, people will forget what you did, but people will never forget how you made them feel. So thank you very much [music]. [applause]

ANNOUNCER: 37:54 For more information about Kessler Foundation go to KesslerFoundation.org. Follow us on Facebook, Twitter, and Instagram. Listen to us on Apple Podcasts, Spotify, Sound Cloud, or wherever you get your podcasts.