Moderator: Welcome to the VA HSR&D Investigator Insights podcast series.

Maria Hecht: Welcome to the podcast. I am Maria Hecht of the Center for Information Dissemination and Education Resources, which is an HSR&D Resource Center. And joining me today is Dr. Heather Gilmartin. She is a health services researcher, a nurse scientist, and a CORE investigator with HSR&D's Seattle-Denver Center for Innovation for Veteran-Centered and Value-Driven Care.

Dr. Gilmartin is also an Assistant Clinical Professor at the University of Colorado School of Public Health. She is also an HSR&D Career Development Program awardee who is midway through her award program investigation, and that study is *Building Supportive Learning Environments: Implementation Research in VA Cardiac Cath Labs*. We're going to be discussing Dr. Gilmartin's work today as well as a paper that's recently come out of that work. Heather, welcome to the podcast.

Heather Gilmartin: Thank you very much. I appreciate being part of it.

Maria Hecht: Absolutely. We're happy to have you here. I know that this paper in health services research is something that is really near and dear to your heart. And we're happy to get it out of your CDA work. Let's dive right in.

Heather Gilmartin: Yes, I appreciate the opportunity to talk about this work because in a time where we now, it's March 2022, and all we hear about is the great resignation, right? Incredibly high rates of burnout, healthcare teams are just struggling. And that's been my whole career. I've been thinking about this because it's never been easy to be a healthcare provider.

And my philosophy around healthcare is that it's a team sport. And in my 20 years as a nurse and health systems researcher, I have seen what happens when healthcare teams don't work well together. Sadly, our patients can get hurt. Healthcare providers give the wrong medications. They operate on the wrong leg. They send people home from the hospital too early.

And then also our staff, right, they are burnt out and then they leave. In most cases, it's not the fault of healthcare teams that these errors and burnout happen. It's because of broken systems. And my current research is trying to fix those systems.

Maria Hecht: Share with me a little bit about what is a learning environment and why is it so important to retention?

Heather Gilmartin: All along, I've had the privilege of working in some really high performing teams during my career. And I've also worked in some pretty toxic teams. I know that there are some places that against all odds, they do focus on their employees. They focus on making sure everyone rises up because you can't do good work for Veterans, if you, yourself are not in a good space. If you have nothing to give, then you can't give to patients.

This was, sort of, what drew me back to research, especially in the VA, because it's such an incredible environment to look across the nation, not just within a single institution. My VA Career Development Award is focused on studying high performing teams and specifically in VA cardiac catheterization laboratories.

And the reason why is that work is amazing. There are 81 VA cath labs in the VA and they provide about, probably more now, 40,000 high-risk lifesaving coronary procedures annually. And cath lab staff are interventional cardiologists, right? These are not just cardiology trained. They go in and do even more fellowship training to be able to do these interventions.

And then the nurses all have to have ICU training beforehand as well, the technicians, just tons of experience. These are our best and brightest in my humble opinion. And they are highly committed to serving Veterans. And what I've learned over the past five years of my work is there are some teams that have created what we call supportive learning environments.

And they routinely use high reliability practices. And this helps them be high performing. But then I've also seen in this population, there are other teams that work hard, really hard, against a really broken system. And the nice news is they want to change. They want to learn. They just need to know where to start.

Heather Gilmartin: Just for those who may not be familiar with the basic principles, what are some of the components of a high reliability organization? And subsequent to that, how do you break those down to a team level?

Heather Gilmartin: High reliability is the philosophy, I guess, it, sort of, started out there. And it comes from industries that are very high risk and complex, but have an incredible safety record. Nuclear power plants, the aviation industry, and amusement parks, which, yeah, when you look at those Ferris wheels, that always makes me a little nervous. But they have an incredible safety record.

And the high reliability world has been driven by five, sort of, key principles. And these include deference to expertise, reluctance to simplify, a sensitivity to operations, which means, like, the focus is on the people doing the work. A commitment to resilience, which is one of my favorites, and a preoccupation with failure. What does that all mean?

That means that the people who are doing the work know the best. That's where that you defer to the experts. You don't just say, "Well, this happened because of X." You get to the root cause of it. And that's for some of our incredible practices like root cause analysis come in.

You are sensitive to operations. Even though the leadership may want this, you pay attention to what's going on in the front line. The commitment to resilience is learning from failures. Knowing failure is going to be happening, and be ready to learn from it so it doesn't knock you down, and you can't get back up.

And then the reality of our preoccupation with failure, it comes from the work of the Institute of Medicine's report *To Err is Human*. Prior to that in the '19 – before 1990, we just assumed we all were perfect, a surgeon never made an error. A nurse never was an error. And finally, someone looked at the data and said, "No, no, we kill a plane-load of people every day." And that was the attention, to say it's not broken people, it's broken systems.

And since that time healthcare organizations have started to look to high reliability, and the VA has actually committed to it, and are spending time, money, and resources to help the entire national organization move from, maybe being reactive to issues to being proactive. It's an honor and a privilege to be part of this in a very, very small way. Because my research focuses on a very small portion of the high reliability world, which let me dig into a little bit.

Because the first concept that that I am focusing on is what we call a learning environment. And learning environments are teams that can be departments or the entire organization that prioritizes learning as part of everyday activities. In my study that we're talking about here published in Health Services Research, I talk about clinical teams that reported that they actually work in these places, these incredibly supportive learning environments.

And they describe it as that they continuously learn new things. And they learn from their mistakes, right, so you're hearing some high reliability concepts here. They learn as a team, and have a lot of discussion, and debate about new ways of doing things. And they share information about what works and what doesn't, not just within their own, let's say, cath lab; but maybe they share it with Pre-Op/PACU, and they share it with the cardiology team, and then they share it with the ER team. And then, built into their workday is time for reflection and improvement. It's not a weekend, nights, holidays activity just for the manager. It's everyone.

And what's interesting is what would the opposite of a supportive learning environment look like? Or let's be honest, what does the current learning environment look like? It is a once a month training, right? It is online modules that you do on your nights and weekends. Or it's a scheduled training just for the nursing department and not the entire cath lab team. It's an environment where people are not supported to speak up about errors, and there are no systems in place, right?

It's your clinical care is designed on everyone being perfect. And there is no things in place that say, "No, no, we're gonna have a five minute huddle every day." And here's the structure, and we're going to have a debrief after every case in a two minutes, and this is the structure. And we have that built into our time.

And by the way, those are opportunities, not just for management to talk at you. It's an opportunity for the team to discuss about things that went well yesterday, what they anticipate today. And then at the end of the day, what went well. Let's celebrate a win. And what do we want to improve on? Is there anything that anyone wants to take on because we saw a hiccup. That, to be in a supportive learning environment, sadly, I think, is quite rare, but I'm hoping to change that.

Maria Hecht: Yes. I think, generally speaking, people really look at, "I have trainings to do. I have these modules." I need to do, as you talk about, let nights and weekends. You're not looking at a true 360-degree feedback environment as long as you remove that blame and you say, "We're not sitting here blaming you for a mistake."

We're sitting here and saying, "What in the system failed you as a person." And where in that system and where in that process can we change? And those frontline huddles, and there's a lot of research being done by, I think, I think, Kenny Hartman, and CHOIR, the Center for Healthcare Organization & Implementation Research. This is really, really important stuff you're doing.

And I want to ask a question specific to why the cardiac cath lab? You did mention these are the best and the brightest. And this is really, it's your heart. It keeps you alive so it's important work. But what about the environment of the cath lab within VA was an appropriate or an appealing model for this work?

Heather Gilmartin: The long-term goal of my work is to look at how learning environments and high reliability practices impact patients. In my study in Health Services Research I capture the outcomes of interests that are close in the sense that employee engagement, employee turnover, and employees' perceptions of the safety of the care that is given to patients.

That's easy to collect because it's something I can do on a survey. To see, if this massive changes, high reliability changes impact our Veterans requires data. And data and cardiology are synonymous. There's lots of it. And the VA has a program called the Clinical Assessment Reporting and Tracking, so the CART program that is based out of Denver. And they collect interventional cardiology procedural data as part of routine care.

It is something that is being done already. I don't have to go and hire people to do that data collection for me. I don't even have to hire people to do the analysis for me. It is out there. The CART program is actually one of the best models I've seen for a learning health system in that the data is being collected as part of routine clinical care.

It's being analyzed and fed back to site so they can see, and learn from it, and make changes, go back. And then you can see if it changed practice and changed outcome. It's this perfect cycle. What we tend to do in research is we go out, and we collect all our own data, and then we finish the project. We analyze it and then unless we're funded again, it ends.

My goal by doing this work is I partnered with CART because they already have the data. As I go off, and try, and change learning environment, and hardwire high reliability practices, over time, and it's going to take time, we can start to see if we have different outcomes for our Veterans. We anticipate we will have different outcomes for our staff. And we will be able to see those.

But ultimately, the reason we do research is to ensure that our Veterans receive, not just adequate care, but incredibly high quality, and safe care. And that is the ROI that Congress probably needs to see to continue to support the incredible efforts that are going on in the VA around high reliability.

I chose cardiac cath labs because I want to, one day, stand in front of Congress and say, "This work has not only made our healthcare staff stronger, more resilient, they stay longer, and they're happier." But we've also made Veteran care safer and more high quality.

Maria Hecht: Talk to me a little bit about something I think that goes under discussed or rarely mentioned with employee attrition. And that is the idea of institutional or resident knowledge. With the VA, you come, and the tendency is people tend to stay, which is a terrific thing. Because they do have accrued knowledge over time.

Has the loss or inclusion of institutional and residential knowledge, has it impacted negatively or positively? I mean, if someone has a lot of institutional knowledge, it could conceivably be that they're biased. They don't want to change. It could also conceivably be that they have a lot of institutional knowledge and they think, "This is ridiculous. We've done it this way forever and we need to change."

Heather Gilmartin: Yes.

Maria Hecht: If you could share with me, kind of, your thoughts on that, and how it's impacted the ability to implement? Because this is an implementation science project.

Heather Gilmartin: I have always been a student of organizational culture. I just tend to be an observer of things. And I have noted over my career some places that don't seem to have a culture, right? People are there. You ask them, "Why do you work here?" And they go, "Because they pay me a lot. The hours are good." But then, you go other places, and to me, the VA is the prime example of this.

And I've talked to staff, and I say, "Why do you work here?" And they say, "Because of that guy, that Veteran, put his life on the line for our country and for me, so that's why I'm here." A mission driven organization is the dream of every business, right? People, it's not just about what you're doing there and how much you get paid, it's why. The why in the VA is very, very strong. We are here for the Veterans.

To your point, there is a very long tenure for many employees. And there are, sort of, whispers that they are not willing to change practice. They are here until they hit retirement, don't tell me to do anything differently. I think as humans, we enjoy the negative story, and we don't ever speak about the positive stories.

And the positive stories that I have been hearing during my research is people who come here straight out of school, who did their training potentially as a physician, who just felt at home, and felt that the work that they do in the VA is why they got into healthcare. The systems are tough, but ultimately the work is really profound.

And my opinion is the majority of the healthcare workforce in the VA is always looking to do better, and always learning, and always trying to give the best care to their Veterans. But again, the system, doing TMS training instead of doing different in-person group training, it, sort of, sucks the wind out of your sails.

My implementation efforts so far, you look for the positive deviance. You look for the ones who are doing it against all odds. And then you ask them to go talk to others, and then…. Because it's peer to peer, they don't need some researcher, right, to come in and say, "This is best practice." I have worked with, the Denver VA cath lab has incredible leadership.

I've gone to them and say, "Show me how you do this." And then, when I'm ready to move to a different facility, "Will you come talk to them?" And that is a real prideful moment for a clinician to be asked to come, and share what you were able to do. I have not experienced the implementation challenges that maybe the negative side of our population like to focus on. If we could use the diffusion of innovation theory as a guide, right?

Go for the innovators and the early adopters, and you can capture them. Then you need to get the early and late majority, which is the chunk, right, the big group. And then you have your laggers, and maybe they have been in the VA, and they're six months away from retirement, and they just want to not change.

All you need is most of a team. You don't need all of them. And if you have most of the team, you can have a culture where people are willing to speak up, where people are willing to learn. And the others come along. They might come along begrudgingly, but they will come along; or they'll leave because they realize they're not a good fit.

Maria Hecht: VA's providers, and so attrition is a serious issue when it comes to VA, and the work that you're doing will ideally provide the support of\_\_\_\_\_ [00:15:37] learning environments to prevent that attrition. Because, yeah, doing a TMS training, I don't like them. And I'm not a care provider. I'm a research support person.

Heather Gilmartin: Right.

Maria Hecht: If I don't like them and I'm not worried about saving someone's life, I can't imagine having the stress of being a provider, and then feeling resentful because I have to go, and take this mandatory video training on my off time.

Heather Gilmartin: I mean, there is a role for online learning, without a doubt. I'm just suggesting that in addition to that, we should start to build in systems. One of the things that, some of the research I'm doing right now, because I'm building an intervention. I've learned a ton from high reliability teams and now it's time to do something about it. And what's been interesting is what we need to put into place is exactly what the high reliability journey is doing.

We need to build structure that people can't work around. It is the idea of every morning there's a huddle. People know, there's, you can pass it off no matter who is leading it. Because there is a couple of questions and everyone knows to be there. That huddle structure has shown to, not to save lives of the patients, but also to really build teamwork, high quality relationships, and communication.

Debriefs, we're very good at doing debriefs if there is an adverse event, right, and even, and then go farther down, and do a root cause analysis. But the high reliability literature suggests you do it after every day, every case. It's a moment to reflect, to come together as a team and unwind. And then also to say, "This didn't go well. Who wants to take it?" And then you follow up with that.

Most of us don't think there is time to do a debrief. But if your management says, "No, no, I'm going to make time," this is important. It's going to happen every day. Those structures then, which become a mandate, almost, right, then become the way we do business. And that changes the culture.

And in regards to attrition, the thought is there are people, there are some departments that no one ever leaves. Why? Because everyone knows how great it is to work there. And it's often because there are these kinds of structures built into the day. And it's very collaborative. They eat lunch together. Someone brings donuts in the morning. They have walking meetings, if they have to, if they can get out of the building.

There is a list to get into that department. There is so much we know is going well in the VA. And actually, the VHA's Diffusion Of Innovation [PH] Academy, I believe, they are trying to find those bright spots, what Dr. Tina Hartman talks, bright spots; and then spread and scale them up.

And where my work fits in is I'm trying to give teams little practices they can do, not if they're in crisis. If they're in crisis, they need to seek professional help around team development. But if they're good and they want to go to great, I've created some, a book for them.

Maria Hecht: Let's talk about the book.

Heather Gilmartin: Where my work fits in is within teams. The VA is doing a phenomenal job of providing high reliability training for leaders and for executive management. And then they're trickling it down through the clinical team training program, which is being offered at every VA Medical Center for clinical teams. It's getting there and it is so impressive. Where my work is, is right at the middle management level.

For instance, the cath lab manager, right, you might be a nurse or a technician. And it counts for my many, many years of being an athlete, I was a college athlete, a triathlete here. And I have a coach for my sports. This came from the idea that healthcare managers need really practical tools that they can try out, just on their own without having to go to training or having to get a master's degree.

And then have a coach to say, "This was good. How did it go? What do you want to do different?" This is similar to sports teams, right, who have coaches and training to become high performing. My question is, well, why don't healthcare managers have coaches, and why don't they have a playbook?

The primary reason I found is because most people assume that you hire a good manager, and they're going to be a great manager one day. And that, if you put good people on a team, they'll become a great team. But it doesn't happen. And to use a sports metaphor, here in Denver there was a rumor we were going to get one quarterback and then we got another. You bring in a great quarterback, that's amazing. But if they don't have a really great receiver, no one is going to catch their balls.

The idea is that, like, can you bring it all together? You might have one great physician, but you need to get everyone from good to great. To fill this gap, I am developing a relational playbook and a coaching model. And the idea is to give healthcare teams the tools they need to build strong relationships and practice high quality communication during the day within their procedures.

This is not a two-day workshop and this is not an online module. This is a do-it-yourself playbook that teams can use on a daily basis. And this will create high performing healthcare teams. And I also believe that this will save lives. This all seems monstrously big in a time where people are burnt out and health care providers, to be honest, were heroes in early phases of COVID, and then, now, have just had to suffer through multiple waves.

And where is the hope? Where is the light at the end of the tunnel? And the way I look at my work is I'm trying to provide a little bit of hope to teams who want to try and get back on their feet. But it takes time. Little things can change the culture. And if you have a growth mindset; you believe that you can change and others can change, things can happen.

I would say focus on the process every day and then the outcomes will follow. If any cardiology teams are interested in working with me on this, I'll be recruiting for a study to test the implementation playbook, and the coaching model within cardiac cath lab teams. And I know, I've had some groups talk to me and say, "Change isn't possible. We just can't do it." But the quote that keeps me going is, "Change can seem impossible unless you acknowledge and appreciate how far you've come."

Healthcare hit rock bottom, right, COVID 2020, '19, 2020 was pretty brutal, but we're digging out. And because we have seen the major issues and systems that have failed because of COVID, I hope we build back. And I hope we build back in an incredible way that is built on the concept of high reliability learning environments.

Maria Hecht: It's truly an inflection point and this work couldn't come at a possibly better time. Because you're here to say, "Yeah, there is hope." We have hit rock bottom, but now is the chance. Now is the time. We know everything that went wrong.

And now we have the tools based in evidence-based research with lots of good data. We have the tools to fix it. I just can't thank you enough for your time, Heather. As always, this has been a terrific podcast. Thanks again for joining.

Heather Gilmartin: It's been an honor and a pleasure. Thank you very much.

Moderator: The views and opinions expressed in the preceding podcast are concerned with the scope of recently concluded or ongoing VA HSR&D funded research and do not necessarily reflect current or to be implemented VA policy. To learn more about this research, visit the VA HSR&D website at www dot hsrd dot research dot VA dot gov.

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