Moderator: Welcome to the VA HSR&D Investigator Insights podcast series. In this episode, Center for Information, Dissemination, and Education Resources' staff member Rob Auffrey talks with investigators Elizabeth Goldsmith and Elisheva Danan about why and how to address sex and gender equity in VA Health Services Research.

Elisheva Danan: I'm Elisheva Danan. I'm a general internist and a CORE investigator at CCDOR in Minneapolis. And I came to the meeting to present the workshop on why and how to address sex and gender in VA research.

Elizabeth Goldsmith: Yes. I'm Elizabeth Goldsmith, and I'm also a general internist. And I'm on our National Transgender and Gender Diversity Consult team. And I'm also a CORE investigator at Center for Care Delivery and Outcomes Research in Minneapolis. I work with Elisheva on the workshop.

Rob Auffrey: Okay, tell me about the workshop.

Elisheva Danan: The workshop really grew out of a need to get trained ourselves. I, back in 2018, we did a systematic review and an evidence map of all the research that included women Veterans in randomized controlled trials. And we found that very few of those, about a quarter of them, actually paid attention to sex and gender differences in their outcomes. And that wasn't that different than non-VA research, but clearly VA had the same problem others did, but with some added difficulties in VA related to the fact that women are such a minority of patients.

 We wrote an article publishing our findings. And in the article we made some recommendations for how investigators could do a better job of incorporating sex and gender specific analyses in their studies. And one of them was that investigators should get trained on how to do this. And we realized that we didn't have that training and we didn't know how to get it, so we thought we should probably put our money where our mouth was and make a training.

 We wrote a workshop together with Denise Duan-Porte and submitted it to SGIM. And it got accepted for the 2020 SGIM conference, which was subsequently canceled. And several years later, it eventually was resurrected in the 2022 SGIM. And then for this conference, we adapted it for VA.

Elizabeth Goldsmith: And I think she brought me in because of the experience with transgender and gender diverse healthcare. It's often difficult to provide people with recommendations that are evidence-based when there isn't much evidence. And there isn't much evidence in part because gender diverse folks did not have a reason to trust the medical community to provide their care. But then also, folks weren't part of research. There are limited studies on the experience of receiving hormone therapy for gender dysphoria and on how to adjust it based on goals.

 People have compiled the evidence that exists, and now we have some pretty solid guidelines. But it's hampered by the fact that transgender and gender diverse folks are often not identified in research, let alone collaborating in research that serves their needs.

 And in the healthcare work with these communities, it becomes apparent that thinking about sex and gender as binaries does not do a great job of serving their needs. And actually, when we look more deeply, it doesn't do a great job of serving anyone's needs because sex is a set of biological attributes. It includes chromosomes, hormone activity in the body, anatomy, internal, and external. And which research question we're asking will determine which of those biological attributes we care about.

 Sex is a proxy for those, but not always a great one. And then gender, too, is a set of components of social and cultural experiences; and which of those we care about the most will also depend on what our research question is. If we, sort of, collapse everyone into broad categories, sometimes that's a good proxy for the variables we care about in a research question. And sometimes it isn't.

 We tried in this workshop to break down both sex and gender as a set of components so we could think more deeply about it in our research questions and do a better job of representing everyone's needs.

Elisheva Danan: We tried to lead people through four steps, considering sex and gender in research. The first one is consider; so thinking about how sex and gender might matter in the research, and then collecting, and measuring sex, and gender. And how those are collected and measured has changed over time. And there's still, I don't know if there is a best practice, exactly –

Elizabeth Goldsmith: Yes,\_\_\_\_\_ [00:04:10].

Elisheva Danan: – But there's a lot of different opinions on how to do it. And it might depend on what you need in your particular study. And then the third C is characterize –

Elizabeth Goldsmith: That's true.

Elisheva Danan: – Which I think is a proxy for analyze. In analysis we talked a lot about how to do a subgroup analysis and what are the potential pitfalls there. Because there are some known risks. And how we think that, even if you don't have the power to do about subgroup analysis, and you have a priori specified, and stratified, your randomization based on the subgroup of interest, at the very least you can report results disaggregated by sex and gender. And that can provide a lot of information that could be useful for future researchers to do a meta-analysis or pull together.

 And then finally, how to communicate your findings related to sex and gender. When to pay attention to those subgroup effects versus the main effects, and when to report the limitations. Because we know that not every study can do everything. While we were adapting this for VA research, we realized that we needed another C, which was conducting the study. Because recruiting and retaining women Veterans as well as gender minorities into research trials in the VA is a particular challenge.

 Once again, it's related to the culture in VA, and the numerical minority status of women being only about 8% of Veterans at any given VA Medical Center. We worked with partners in Women's Health Research, and a work program, which is part of the Cooperative Studies Program, and the LGBTQ+ Health –

Elizabeth Goldsmith: Health program.

Elisheva Danan: – Program to try to get some tools, recommendations for how to do this.

Rob Auffrey: Two things, gender dysphoria, gender differences is big in cultural America today. Has that changed awareness and opportunity for you? And two, Lizzie, you mentioned something about the fact that binary definitions don't work well for anybody. Could you go into a little more detail on that? I just wanted to get those both out there before I forgot them.

Elizabeth Goldsmith: Yeah, sure, absolutely. To the first question, I think greater awareness is helpful, especially when it recruits more resources. What we need for work for women, for work for folks who are gender diverse to meet needs is we need infrastructure, and money, and staff, and people to do the work, of connecting with communities, of developing best practices, of networking with partners, of operations in VA; and coming up with ways to make tools and processes for best practices in research accessible to everyone.

 Right, I think the LGBTQ+ Health office has expanded in the last few years and has gotten more support. They need more to be able to provide the tools that folks would otherwise be trying to make from scratch. And that's not a recipe for people to do the best possible. I think the greater awareness has gotten more attention to the resources that are needed. I don't know that the resources are where they need to be yet.

Elisheva Danan: Well, I think that specifically for the issues of gender identity, there are pros and cons to the public awareness because it's become somewhat politicized. One of the things that came up during the workshop was people saying, when we ask these questions, when we ask patients to comment on gender, we get some pushback sometimes from patients who either are wary of why they're being asked. They wonder if they've been singled out. Or they feel that it's been overly politicized in a way that they have to take a stance against even answering the question. And I think that it's the minority of people, and certainly people are going to give you pushback about any sensitive topic, right? If you ask questions about income, a lot of people don't want to answer that.

 But because of the inherently political nature of this, it can be difficult to keep it scientific, I think, and do what we need to do, which is be as clear and precise as possible in a consistent way, so that we can collect data that will inform.

Rob Auffrey: And for the second, the idea that the way things are traditionally seen in binary doesn't work as well as it could for me is interesting.

Elizabeth Goldsmith: Sure. Well, okay, I won't presume how it would relate to you, but I can say in general. One example we walked through in the workshop has to do with, kind of, mistakes we might make and how in understanding social processes if we just assume that men versus women is enough investigation. A study in Australia in 2009 and 2010 found that the rates of work injury among people doing shift jobs were much higher among women than among men. And then the question might follow, so should we develop work injury programs that focus on women? Because we've done the work and we see these rates are different. The authors dug a little deeper and thought about other variables that they might have access to, to investigate how the experience within a category of gender might be different based on different elements of social experience. And they used a variable like dependent children in the home.

 And when they did that breakdown, they found that the higher rates of work injury among women were pretty much entirely driven by women with dependent children in the home who had higher work injury rates when they work in shift jobs than men, whether or not the men had children, and than women who did not have dependent children in the home.

Elizabeth Goldsmith: When you looked just that little bit deeper, you realize there is a whole other set of phenomena happening, right? What's going on? Are these women sleep deprived? Are they working different hours? Are they perhaps picking up extra shifts? Like, what are the factors that we need in order to reduce work injury for those women?

Elisheva Danan: And a lot of this relates to aspect of gender like gender norms, gender roles –

Elizabeth Goldsmith: Exactly.

Elisheva Danan: – Things that can vary and might vary within men or women.

Elizabeth Goldsmith: Right. And we go through, we break through, down some of those concepts of gender identity, gender roles and relation, the ways that folks relate to each other. The expectations about what is good or bad behavior that is considered quote-unquote masculine or feminine. Right, which are social, and cultural, and contextual but affect all of our lives. And then institutionalized under the way that that can be built into labor and society such that people might feel limited in what kind of jobs they can take, right?

 For many decades nursing had this reputation of being a profession for women. A man interested in nursing might feel discouraged. Engineering was thought to be a masculine profession, right, so the opposite problem was there.

 I think back to that work injury example, the concern would be, we just do that initial binary analysis and we don't think about roles, relations, institutionalized gender. And come up with a program to try to help women not get hurt at work, we probably won't improve work injury rates because we want to look at factors that drove the problem. And we might reinforce negative gender stereotypes at work, right?

 Now, we've spent a lot of money and our programs have backfired. That's the, I guess, the argument is looking a little deeper than this category. and thinking about what sex and gender really are as a set of experiences.

Rob Auffrey: Can you lay it out, how that translates to your work in treating Veterans and –?

Elizabeth Goldsmith: Yes.

Rob Auffrey: – Gender diversity?

Elisheva Danan: Well, one of –

Elizabeth Goldsmith: The Veterans.

Elisheva Danan: – The projects that we're trying to work on together, trying being the operational word here –

Elizabeth Goldsmith: Yeah.

Elisheva Danan: – Is related to cervical cancer screening in the VA.

Elizabeth Goldsmith: Yes.

Elisheva Danan: A lot of my research has been in women's health and focused on cervical cancer screening. And one of the questions we had was whether or not they're…. How Veterans are getting screened, are they getting screened according to guidelines as often as they should, too often, not often enough? And there's been studies in other healthcare systems showing that often people who get screened, there's differences by race. There's differences by socioeconomic status in terms of who's underscreened and who's overscreened.

 And there's consequences to both, right: being underscreened, a higher risk of getting cancer and not getting it diagnosed in time; and being overscreened, higher risk of getting a lot of excess follow-up tests and exams. And a lot of those follow up tests, and interventions have pretty significant consequences, and side effects.

 Really, the sweet spot is to get people screened according to the guidelines, every three to five years. And we wanted to look in the VA health records in CDW to try to understand how that was happening. And we had this idea to look at transgender Veterans, so Veterans who have a cervix, but don't identify as women. They might identify as men or as gender diverse or non-binary. And we've been trying to look at this question for a little while.

Elizabeth Goldsmith: Right.

Elisheva Danan: And it's been really challenging in part because the way that this data is collected in the VA is inconsistent at best and inaccurate.

Elizabeth Goldsmith: Yes, it's hard to find people, right, to find people who have a cervix and who don't identify as a woman. There aren't variables that you can just pull for that, right? That limits our ability to do work for folks who have that experience in life. We met some folks here today who have similar projects that we're trying to network with. We're grateful for this conference because it brings people together who are trying to find a way to make the data serve Veterans. But that's an example of, sort of, folks who exist –

Elisheva Danan: Right.

Elizabeth Goldsmith: – And need cancer screening. And it's hard to help them get it because we can't find them.

Elisheva Danan: We hypothesized that they would benefit from alternative modes of screening.

Elizabeth Goldsmith: Right.

Elisheva Danan: As we are developing those, right, we're doing research right now to try to bring self-collected HPV testing as an alternative to traditional cervical cancer screening into the VA. And as we do that, I'd like to be able to do it in a way that is inclusive for people who would be most likely to benefit from that test.

 And we suspect that transgender Veterans are gonna be in that category of people who might prefer to have this test rather than a specular exam. But first we have to be able to find them, measure them, and identify whether they're getting adequately served by current screening practices so that we can see if there is an improvement.

Rob Auffrey: Okay. Why don't we wrap up with this, how did you come to the VA? Or why did you stick with the VA? And what has that done for you?

Elisheva Danan: I came to the VA for a fellowship after residency. I was an internal medicine resident, chief resident in Los Angeles at a county hospital. And I thought I'd spend my career in the county. I really enjoyed working with underserved populations and immigrant populations in South Los Angeles. And my husband got a job at the University of Minnesota so we came to Minneapolis.

 And I ended up taking this Health Services Research fellowship for a couple of years at CCDOR. We're thinking, "I'd do it for two years and then I'd go to the county." And at the end of the fellowship there was a job opening to stay on this faculty. And I realized that I really, really liked it. And that's the reason that I stayed.

 And I found that in women Veterans, which was the population I was working with in the primary care clinic, I really was able to find an underserved population similar to the one I had worked with in the county, but in a very well-resourced setting. Where the VA had this, kind of, wraparound services that was really a model healthcare system of how, kind of, thing we were striving for in the county of trying to build this interdisciplinary team approach to providing services that could address cultural, social determinants of health, all sorts of things.

 And I found this universal experience that I had encountered in the county system of patients who had just experienced trauma throughout their lives. And in the immigrant population I was working with as a resident, a lot of that came from the trauma of immigration, of living in a foreign land where you didn't speak the language, of poverty, of wars in Central America that they had fled in order to come to the U.S.

 And in the VA, in the women's clinic there was the same experience of trauma. And it might have been different experiences related to combat trauma, sexual assault. A lot of people who had, again, escaped abusive home environments in order to join the military in the first place. But that same universal experience, and how it affected their lives, and their health and their health, and their healthcare, was present.

 I felt like I wasn't actually leaving what I had wanted to do, but I had just found another community to work in. And the opportunity to be able to do research where you could really have an impact, which I think we can do in the VA more than in just about any other healthcare system. I stayed and I became the associate director of the fellowship and then the co-director. And we recruited Lizzie to join the fellowship.

Elizabeth Goldsmith: I was lucky to get to the role. I think I learned about the VA in medical school like a lot of people do, right? Because the VA provides a lot of the medical training in this country. I was working while I was in medical school. I moved to California. I trotted around after people in the VA Palo Alto and I knew that I wanted to be a primary care doctor even in medical school.

 And I had this concept that that meant you were, kind of, marooned. You're on your own, right? You wish people could have mental health support. You wish people could have social support, but you don't have access to all that stuff. Because in the other private clinics where I was working, those were services that you didn't really have a connection to. And that wasn't true with the VA. There is a psychologist down the hall. I could connect with them immediately.

Elisheva Danan: Yes.

Elizabeth Goldsmith: Right? I knew what social support programs were available because people in the clinic told me. There was a nurse who directly partnered with the attending that I was working with who also knew the patients really well. There was this team approach that felt like a community trying to lift up care for Veterans.

 And I was like, "Well, this is where I want to do primary care." This is a great model. Where else does this exist, right? Then, I went – I came to the University of Minnesota to do my internal medicine residency, and then also do some epidemiology training. Because in medical school I also realized I enjoyed research.

Elisheva Danan: She's being modest. She got a PhD in epidemiology.

Elizabeth Goldsmith: I mean –

Elisheva Danan: And just a little training.

Elizabeth Goldsmith: To learn some skills, to\_\_\_\_\_ [00:17:18] learn some skills, but then, right, and the research that I did in medical school related to sexual and gender minority health. And I realized I would like to do a better job of understanding what these variables mean and how we analyze them. Why we make the choices we do. And also, I want to do primary care work as part of the team. And the VA seemed again, Minneapolis, like the optimal place to do that.

 And, those services are still, it's still shocking to me, right? The National Transgender and Gender Diverse Electronic Consult team, that's interdisciplinary teams in Minneapolis and in Tucson who can communicate with providers across the country, right? Someone who is in rural Maine, and needs care may see a provider who wants to do the best things they can for this Veteran, but they don't have training, and relevant transgender, and gender diverse care. Because most of us don't, right?

 What research do they have? They can send out a consult through CPRS and reach teams of national experts, right? They can get communication. They can get repeated written communication. We talk on the phone. We have trainings that are available to folks, right? I think most health systems don't have a network like this that can be national. I just feel part of the local community, CCDOR is the best. The people are nice.

Elisheva Danan: \_\_\_\_\_ [00:18:28].

Elizabeth Goldsmith: We don't always find this in academic research. I'm not gonna lie. Right, people, we both come to each other's talks because they're interested and want to help you make it better. They'll give you feedback. They'll tell you how to prove it. But it's in the interest of helping the work and helping you do a good job. Just, I feel lucky to be part of these different, like, layers of VA community, which this conference is just affirming them.

Rob Auffrey: This has been awesome. I'm going to stop the recording –

Elizabeth Goldsmith: Okay.

Rob Auffrey: – Because we have so much material.

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