# Race in Epidemiologic Research

Show Notes:

Dr. Albright interviews Dr. Slaughter-Acey and Dr. Janevich about the appropriate use of race in epidemiologic research.

Transcript

Speakers:

(KA) Dr. Kat Albright

(TJ) Dr. Theresea Janevich

(JSA) Dr. Jamie Slaughter-Acey

KA: Hello and welcome to the SMFM Race and Research podcast series. I'm Kat Albright an MFM at the University of Washington. During this podcast series, we have been interviewing experts around the country about approaches to conducting and consuming research in maternal-fetal medicine with an anti-racist framework. If this is your first time joining us, welcome. We’ve had a number of other great prior interviews. Check those out if you haven't already. Today I'm interviewing doctors Theresa Janevich and Jamie Slaughter-Acey. Doctor Janevich is a perinatal epidemiologist who studies the social and structural determinants of maternal and infant health. She is an associate professor of epidemiology at the Columbia University Mailman School of Public Health. And Doctor Jamie Slaughter-Acey is an associate professor at the University of Minnesota in the division of epidemiology and community health. Her research primarily focuses on environmental and psychosocial factors that contribute to Women's Health across the life course with emphasis on the maternal and child's health of marginalized and underserved populations. Today we'll be talking about methods for using race and evaluating health and health disparities in epidemiologic studies. So, thank you both so much for joining me today.

TJ: Thank you. It's my pleasure.

JSA: Yeah. Thank you for having us.

KA: Of course. So just to start, we can all probably think about examples in the past where race has been problematically used as a confounder in clinical research or in epidemiologic studies. So, I'd love just as kind of some background for you to maybe each tell us why it's so problematic or why it has been problematic in the past just to make sure we’re all on the same page.

JSA: Yeah, I guess I'll start. So, I think the most notorious problematic example of using race as a confounder in clinical research is the historical misuse of race as a biological determinant in clinical studies and you know those studies that often use race as a control variable, they're doing so in an effort to account for genetic differences or variation and susceptibility, but the problem is that they, you know, in doing so, they're failing to acknowledge the considerable genetic diversity that exists within racial groups, the minimal genetic variation that exists between racial groups, and they're also ignoring that complex interplay between social, environmental, and biomedical factors that contribute to the health outcome that they're looking at.

KA: Do you think there are times that it might not be problematic to use it as a confounder?

TJ: Yeah, I would. I think I would also add to, you know, there's definitely a historical problem of using race as a confounder, but even after you've properly identified it as a social construct and you’ve realized that it really represents life course, even intergenerational racism and exposures that are a result of it, you realize it becomes actually a very fuzzy concept to throw into your model. So even after you've acknowledged what it actually is, at times adjusting for it, if it's not carefully considering you know what actually it's doing in your model, you know can also be inappropriate.

KA: And I think that a lot of us have struggled with that and trying to really figure out why you know, why we're using race in the models and what is it that you know what is it trying to tell us?

JSA: Yeah, exactly. And I think like for those studies that do use race as a control variable, I think it's important to go into the study knowing what you're using race as this proxy for, right? So, and really kind of thinking about all that race represents with respect to racism and the consequences or influence of racism. So primarily thinking you know, race is this proxy for racism, but there's also some cultural aspects that are associated with race and you know there is an intersection between racism and classism, that sort of thing. So, it's just really, I guess maybe it's just really important to be very thoughtful about that variable even if you do use it.

TJ: Yes, I agree. And I would also suggest you know there are some steps you could take as well once you've, as Doctor Slaughter-Acey said, once you've really kind of taken the time to deconstruct what you think are those active ingredients for your research question because it might differ on the research question. You know, then you might consider what all the other variables you do have access, that you know you might have access to in your data, that could, you know, could affect some of those active ingredients. So, if it's some other, you know, comorbidities, for example, entering pregnancy, that may be disproportionately represented among, say for example, black women, and perhaps it is due over life course to exposure to racism, but it might manifest itself in pregnancy as increased risk of chronic hypertension, say, entering pregnancy. What have you adjusted for hypertension? So that's probably an obvious example to listeners here, but there might be many other clinical variables or even social variables depending on your data set that you could use instead of race and then you know when you did try to adjust for those, you might see it doesn't make much of a difference because you've already adjusted for some of those active ingredients.

JSA: Exactly.

KA: That makes a lot of sense.

JSA: Really good point.

KA: And then I have personally been told that, gosh, maybe we shouldn't use it in my model as a confounder. Maybe we should think about it as an effect modifier, maybe we should think about it as a mediator and I think that it might be helpful for you to two to potentially discuss there are other, if their research studies that you can think of that have used race well in those contexts, or whether it just really depends on the study that you're doing.

JSA: Yeah, I mean that's a really good question and I'll just say that it really depends upon the study that you are designing and the research question that you're designing the study for. So, and to some degree it depends upon whether your primary focus is race, racism, or another social determinant, or whether you're focus variable of interest is maybe a little bit more downstream in the psychosocial or biomedical realm. And so you know, when we think about the concept of race as a an effect modifier rather than a confounder, it allows us to give attention to better understand how health disparities and that complex interaction between race and social determinants of health and disease are playing out. And I think it's important to remember that effect modification is really, we're referring to situations where the effect of the exposure on the outcome is varying according to the levels of another variable. And if you're looking at pre-existing, let's say pre-existing comorbidities and readmission to the hospital after discharge rate then maybe as a first step, or an exploratory step, you would maybe want to see if there is an interaction or effect modification by race, but you would then want to follow that up with what are some more precise variables that represent the pathways that are contributing to this effect modification?

TJ: I think that's a great point. I think you've probably heard, sometimes people you know will suggest to look at race as an effect modifier. And you know, I totally agree with Doctor Slaughter-Acey, I think also it can, I guess I can give you an example of a study I have under review at the moment, where we’re looking at factors, clinical, and social and structural factors influencing transition from gestational diabetes to type 2 diabetes later in the eight years past pregnancy. And we do look at mediation. So in other words, what factors mediate? So, for example, the black-white disparity, you don't see a large contribution by the social and structural factors that we measured, but when you look at effect modification, which we do as well, in other words, how do those clinical, social, and structural factors, what are their associations with later type 2 diabetes within each group? You find some unexpected findings. So, for example, some of the like education variable is not as strongly associated in black people as it is in white people with transition to type 2 diabetes, there's sort of a flat gradient of education and actually that's something you see in many different health outcomes. So, it shows that perhaps education is not providing the same social protection in black people as it is in white people, at least you know in this sample of birthing people. So I think only by looking at effect modification can you kind of get to those hypotheses about what's going on in your data. Now on the other hand, some people do just sort of reflexively say oh then I'm going to look at interaction by race, ethnicity. And throwing interaction term without really thinking about theoretically why you might expect to see or even with a hypothesis of why you might expect to see differences between groups, and I think that's what some people have challenged in the literature, is not being worthwhile.

KA: Makes sense. It gets back to the point of, you know, what are you trying to ask and where are you trying to go and how do you think race is playing a role here?

JSA: Right, I also think it's, you know, in thinking about race as this form of racial classification or this, you know, racism being a system of racial classification and race is the outcome of that system of classification. I do think it is important to look at effect modification of race because racial categories, they do reflect a hierarchical classification system that has this embedded privilege and disadvantage in it. And so, it is important to monitor how we're doing the magnitude of racial and ethnic disparities, but you can't stop there, and you can't, you should not just look at the association or prevalence rates or incidence rates by race and ethnicity for the sheer sake of a manuscript or, you know, not thinking about what's next?

KA: Something that has come up a lot in just the trainees that I work with and many of them are doing studies that actually aren't thinking about, that aren't focused on race, but the question always comes up, Well, how do use race respectfully, or at all in studies where actually this isn't really my primary focus?

JSA: Yeah, I think that's a good question. So, I guess maybe the short answer is that no matter what, it's important to ask does race matter here, which is followed by does race, does racism matter here? So, if race matters, then racism matters, right? How does it operate and how is it influencing or shaping the, you know, exposure and outcome that I'm looking at? In doing that, I think you can respectfully identify variables including race, and think about whether or not they belong in the analysis or they belong in the discussion when you are interpreting your findings and speaking to implications and what's next.

KA: You know, as some of us are developing data sets to use in epidemiologic research, are there specific variables, and you know in order to cover a broad array of research questions, are there specific variables that we should all start to think about and include in our data sets that we're developing?

JSA: Yeah, I think that's a really good question. The measures that we use in our studies to try to capture racism, are only proxies for racism and you know the level of racism that we're trying to understand. And so, you know right now there's this bloom of measures focusing on structural racism and in truth, they're really only proxies of structural racism because structural racism historically and contemporary have been unleashed and set forth in this world, for a very, very long time. And so, it's a very difficult concept to wrap your arms around and so each measure that we have is just a little piece of the pie and being able to describe structural racism as a whole, and that's why it's really important not to think all measures of discrimination are the same, right? So, if, for example, if we're focusing on the interpersonal level, everyday discrimination, so the scale by David Williams looking at everyday discrimination, is not measuring the exact form, or the same form of discrimination or unfair treatment that his instrument major experiences of discrimination.

KA: Great. Thank you. Now going kind of much more broadly. I was recently at a talk and the speaker was mentioning that we should really stop saying that race and racism impact outcomes because they do. And really start working to do something about it, whether that's a better understanding of the mechanisms, taking steps to improve outcomes, etcetera, etcetera. A lot of us aren't doing prospective trials, we're not doing community engagement research at maybe even the most basic level. How do you think that we can use epidemiologic studies to start to address that criticism, not just describing that racism exists, but what to do about it?

JSA: I just, I automatically think back to Camara Jones and a really great paper she put out where she is addressing structural racism and that she says it's not just one thing that we have to do, it's really three things that we have to do, which is first name racism. And I think it's always important to name it, because if you don't name it, then you can't ask the second question or do the second step that she speaks to, which is asked the question how is racism being operationalized here? So how is it being operationalized here and why does it matter? How is it affecting the people in the population or in the community that I am providing health services to? And then third is that taking action. So, once you have, you know, identified how racism is operating here, it is really and influencing the outcome, it's really important for you to then think about action steps that you can take. I'm going to say that this is naturally kind of done with community, right? There's an implicit inherent piece there, this is with community right? And identifying ways to address racism, and I think it's always important to name and identify the ways that racism is operationalized in relationship to the health outcome, and, population, context, etcetera. Because when you move to addressing the form of racism that is working there, you don't want to create further harm with your preventative action or intervention, and that's the last, you know, when we start off doing this work, the last thing that we want to do is create further harm. Racism does enough harm, right? And so, if we blindly deconstruct and tear down structures that represent racism and when we are sort of building a new, we may very well be building new structures that incorporate the same form of racism or new forms of racism.

KA: Those are great points and important to think about. My last couple of questions are really surrounding resources that people are able to use thinking about doing this research. So, the first question is do you have any instances, paper, studies, etc. that have done a really great job applying an anti-racist and/or equitable framework in epidemiologic research that you can either talk about briefly here and then we would share.

TJ: The one paper that comes to mind, and I'm always hesitant to name a paper because then, you know, you're, you know, ignoring many other important contributions, but just something that comes to mind is the paper by Chandra Ford from UCLA, who has published a lot of very impactful work about anti-racism in public health, and one of her papers from over 10 years ago walks through the anti-racist public health practices. But in an example for secondary data analysis which I found particularly, you know particularly useful because there are a lot of clinicians and a lot of you know, a lot of epidemiologists who are doing analysis with data that's already been collected, whether it's the EMR data or, you know, large administrative data set or, you know even maybe using someone else's studies. So, I found I think that's one great example. I believe you mentioned during your question, especially if it's not maybe a full-scale community-based research study, in particular for that situation, I would recommend that.

KA: And any other resources that you guys can think of that nicely highlight the different ways that at least people have described racism operates in society, society I guess a big topic, but specifically how we can then use those in our epidemiologic research?

JSA: I think well, so there's a lot of real, like, really good papers and one of them that I always go back to is a paper by David Williams, published in 2013, I believe it was in an analysis of behavioral health. And it's one of the first papers that he lays out a framework for the study of racism. And then I feel like every couple of years after that article, he's put out a sort of updated evidence review or literature review around racism and different aspects of health, and he's continuously updating this framework in which, I believe one of the most recent ones was published in 2019 and the co-authors are Bridget Davis and Jordan Lawrence, and in that one, they really bring in the structural racism and the kind of like the house that structural racism built and really focusing on how structural racism feeds into that biopsychosocial pathway to health. And so, I feel like that's a really good paper and I do actually base a lot of my work on that model. The Chandra Ford article I think is really good. She also follows it up, I also want to say in 2019 or 2018 with a book in which, you know, chapters are written by experts in the field, and they're addressing multiple aspects in which you may be interacting with the concepts of race and racism in, in your work, whether it's epidemiologically based or whether it is more community-engaged based right? And then, I guess maybe the caveat I would say, is that in the last like three or four years, ever since black maternal health has gotten popular or become a hot topic to focus on, there has been a lot of really good papers written about what to do and what not to do. And I think they're great, but what I will say is that if you are a novice in this area, yes, you should follow the recommendations, but don't follow them blindly because those recommendations, all of them do not apply for every single situation, and so it is important for you to put on that critical thinking hat and really think through the recommendations before you apply the recommendations, so you can really see what is pertinent to your study, your analysis, and what's not.

KA: I think that's great advice, this and you know, perhaps life in general. In our last couple of minutes, is there anything else that you two would like to add?

TJ: I would add just in terms of recommendation, earlier Doctor Slaughter-Acey mentioned Doctor Camara Jones and I think you know, there may be some listeners who aren't familiar with her foundational paper, which is now over 20 years ago, but so relevant and current today, and which is the Levels of Racism: A Gardener's Tale, and I think that's essential reading just as a baseline for anyone diving into this topic.

KA: Well, that's great. Thank you both so much for taking the time today for this important conversation. Listeners, you'll find some of the resources and papers mentioned in our podcast notes. And thank you so much for listening today. Please join us for future podcasts on things like language of health disparities, how to consider race and racism, and basic science research, community engagement work, qualitative work, and others. Have a great day.