

Beauty + Justice Podcast

EP3: + A Look into Beauty Product Chemicals with Dr. Robin Dodson

LISSAH JOHNSON

You're listening to the Beauty + Justice Podcast where we talk with folks from a variety of fields about what it will take to create a more clean and equitable future beauty for everyone. These conversations are led by Dr Tamara James Todd, a trailblazer at Harvard Teach Chan School of Public Health and head of the Environmental Reproductive Justice Lab, and I'm your host, Lissah Johnson, a PhD candidate at Harvard Chan.

Hey listeners, welcome to another episode. So, some of you may have heard about the scary array of chemicals that can be found in our personal care products. What exactly are these chemicals of concern? And more importantly, what can we do about it?

ROBIN DODSON

We should be hitting the manufacturers with better green chemistry, kind of reformulation of these products. We should be thinking about the various policies that can reshape what's in these products to begin with.

LISSAH JOHNSON

That was our guest for today, Dr. Robin Dodson. She is the Associate Director of Research Operations and a Research Scientist at the Silent Spring Institute and today on the podcast Dr. Dodson and Dr. Tamarra James-Todd are going to be diving into what the chemical exposures are that we get from our beauty products. She also gives some recommendations on ways to prevent these exposures. Now here's Tamarra to get the conversation started.

TAMARRA JAMES-TODD

I'm really delighted to have a friend and colleague, Dr. Robin Dodson join us today on the Beauty + Justice podcast. Robin, I'm in awe of your work. I love that you really bring to light the importance of both research and advocacy work in the space of personal care products chemicals and really highlight the need to work with communities in this work. And so, I would love to hear more about your story, and so would you take a moment to introduce yourself to our listeners and tell us a bit about how did you know decide to pursue work in research and really work in this space and the intersection of working with communities and doing advocacy work.

ROBIN DODSON

Great, yeah, so I'm an exposure scientist by training, and I was fortunate to join Silent Spring Institute about 14 years ago, as a postdoc coming right out of the Environmental Health program at Harvard, and so started as a postdoc and then just kind of rolled into a Research Scientist position and kind of never left. I feel like I've really found a place where I feel like my research really has an impact.

TAMARRA JAMES-TODD

One of the things I really love about the work that you are doing, I mean, certainly you know wide range that I would love for you to share with our listeners, but I think the thing that really tugs at me is how you can really help us as a community, understand what are the community's concerns around these chemicals that people are exposed to, oftentimes you know unknowingly to them. And I would love if you would share a little bit with us about one of the studies that you're working on, the Taking Stock

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Study and you know that it maybe share a bit about the community that you're working with and how that came about. And kind of what are the highlights? What are you finding out about their concerns? You know, as it relates to these chemicals that are in our personal care products.

ROBIN DODSON

Yeah, so the Taking Stock Study is really kind of it's been a long time coming. It's based in California, mostly in South LA. The community partner in the study and the community PI in the study is Black Women for Wellness, which is a organization that's been around for 20 plus years in South LA working to elevate and empower women, Black women specifically living in their community around some of the health disparities that they've been observing and experiencing in the community, and so this project actually marries together, kind of intentionally the kind of community as a PI, as a as a prime on this, but also the research side of things. And that part actually is led by Bhavna Shamasunder, who is faculty at Occidental College. And you know, I think a lot of our survey work you know, it's nice, it kind of reinforced some of the things that we already knew about some of the kind of more common patterns that we see in terms of consumer product use. But it also contributed kind of some of the first data on what Asian women are using, and even what Latina women are using. And also, we meant it to try to start taking a step forward and thinking about, well, what do we wanna do about it right? So, we asked women you know where do you go to learn more about products? We asked women, you know, is it, you know, your friends or your family or things like that. What are some of the considerations when purchasing products? All of this is meant to have set us up for coming up with strategies now to try to try to kind of breakdown some of those exposure disparities that we're seeing and try to understand if there are strategies that we could help that could help women or help communities to try to reduce our exposure to some of these harmful chemicals.

TAMARRA JAMES-TODD

You know there's so much work both you know, coming from a variety of, you know, research labs and so on showing higher chemical exposures to some of these chemicals and consumer products in in you know populations of color, particularly women of color. And you know, there's more work increasingly, but certainly, you know still more limited work on what people are using within different populations, was there anything that was surprising or striking with respect to the like you know who's using what? Or, you know, maybe that could help explain why we're seeing higher chemical exposures in certain populations or groups?

ROBIN DODSON

Yeah, sure, so I think I mean some of it kind of reinforced some of the earlier work that you had done, and others had done, right, showing that, for example, that Black women tend to use more hair products or more or more variety of hair products than other women. So that wasn't necessarily a new or novel finding, but it was important to kind of see that again, to replicate that, we did find actually that Latinas tended to use more cosmetics than other women and that you know, as an exposure scientist that's important to me because those are those are products that stay on your skin all day, right? So those have fairly high kind potential for exposure. So, digging into that. But another thing that we found that I think that nobody had kind of really documented before was that the majority of women are using fragrance products and that is really important because we know that there's you know fragrance and generally, when it's added to products can be 10s, hundreds of kinds of different chemicals that we

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don't know about, and so because of labeling laws and so that was really important across the board, the majority of women are using fragrance products and to take that a step further now only a very small number of women were using fragranced tampons that is an area that I think should be pursued more.

TAMARRA JAMES-TODD

I know in the in this work there's also you know a lot of effort to try to figure out what are people using behaviorally, but also what you know in the context of this work is it just the individual? That's kind of making those choices? What do you think might be driving, you know, at least in part, that you know that usage pattern.

ROBIN DODSON

Certainly, I think there's some real kind of underlying kind of societal drivers behind that use right? So, I mean we have, I love how you know Ami Zota and Bhavna Shamasunder had kind of put forth this idea of you know the environmental injustice of beauty. This idea, right, is that product use is not in isolation. It is actually a product of various isms, right? Colorism, odorism, racism, a whole bunch of these kind of discriminatory practices at the societal level. So, like for example with fragrances as a society for some reason we think that people shouldn't smell like people. And so, it kind of forces us into that space, right? But and that's a concern, right? Like you know, why are some of our product choices are not based on what you intrinsically feel would be best for you, but it's because of what you have perceived by others and fragrance is a perfect example of that.

TAMARRA JAMES-TODD

Yeah, it's a, it's a really great point and I think also when we put the onus on the individual and really don't seek out the reason why someone is, you know, let's be honest, there's power in beauty. You know whether that's economic gain or social gain as far as social position, acceptance, you know, connections, so many drivers that are relevant to why people may seek out, you know, various products and so on and at the same time, the average person you know may not have a great sense of what is in the products that they should be concerned about. So, Robin, would you mind sharing with our listeners a bit about what are some of the chemicals of concern and what should they be aware of when you know thinking about the products that they're using?

ROBIN DODSON

Right, so we've already touched on some of that, I think you know fragrances. Generally, if you're kind of I'm asked like if I'm, you know, if you're going to the if you're gonna make decisions about your products today. What, you know, what are some of the decisions that you could make that are actionable today, avoiding fragrance products, so choosing things that are fragrance-free specifically. And because again as I, as I mentioned before, right, like that's kind of a, it's a catch all term that we don't know a lot about. And then you know when I think about, there are certainly chemicals that I am very concerned about in products. Unfortunately, sometimes they're very hard to avoid in consumer products. So, for example, like phthalates are in products that we use every day. It is very hard as a consumer to avoid that by picking up a product and reading the back label. When we did our product testing study several years ago, now we never saw phthalates on the label even though the phthalates were detected in the majority of the products and that's just because is it in the fragrance? Is it in the packaging? Is it in some

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other kind of part of that formulation? But it's just not disclosed. But there are chemicals that are disclosed and what I consider to be more actionable. That's things like parabens, also, things like UV filters, benzophenone-3 for example. But a host of other chemicals, UV filters, those are actionable. They have to be labeled as active ingredients when they're using things like sunscreens according to FDA. So, you know that chemical is in there and so that just helps you. So, it has to balance the like what I'm concerned about from a health perspective but also what I think a consumer could actually do when they're going to the store tomorrow to pick out a product.

TAMARRA JAMES-TODD

And when you say that you should be thinking about or avoiding fragrance or you know, parabens or these UV filters. What is it about them that you know why should, you know, people avoid these? What is it? What does it do to our bodies?

ROBIN DODSON

So, in our product testing work, for example, we saw diethyl phthalate is strongly correlated with the presence of fragrance on the label or other fragrance chemicals so by avoiding fragrances, you're avoiding, some phthalates, and people can see you can see that in the biomonitoring studies as well, where people have seen kind of use of products or use of fragrance products, an increase of diethyl phthalate or other phthalate concentrations. So, you could avoid exposure to phthalates, right, which we know are endocrine disruptors. Fragrances are also for some people like a real concern just from a respiratory health perspective too, so you might be avoiding that or asthma triggers things like. And then for parabens, right, those have been associated with a suite of things, including endocrine disruption. They act like estrogen in the body and same with some of the benzophenones. The UV filters also are estrogenic.

LISSAH JOHNSON

As the name suggests, endocrine disrupting chemicals are chemicals that affect our bodies hormonal system. Now this is important because hormones are the way that our body communicates many basic processes like feeling hungry and full or preparing your body for a stressful situation. And of course, things like menstruation and puberty. Hormones can act at low levels and so even at small concentrations these hormone mimicking chemicals impact these critical communication pathways in our body.

TAMARRA JAMES-TODD

So no, that's you know that's really helpful, because when we think about things like estrogen or you know, we know that that there's links with a variety of health outcomes ranging from breast cancer to other chronic diseases. I wonder if, you know, you can share with our listeners a little bit about the hair product study. That was done several years ago that really highlights some of that, you know, inequity in exposure.

ROBIN DODSON

You know, I often so this is you're talking about the hair product study that we did a couple of years ago, first author is Jessica Helm, who was a postdoc with us at Silent Spring. That study really kind of was kind of born out of a variety of things, so we decided that you know, trying to not really to try to solve or kind

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of answer the complete question, but really try to just kind of contribute to some of the evidence that would be needed is that we sent those tests, those products, 18 different products off to get tested for, you know a whole suite of endocrine disrupting chemicals, over 60 endocrine disrupting chemicals and asthma related chemicals. And what we found was that these chemicals are widespread, I mean that they are. We found them in other products, certainly, but in general we found the levels of many of the EDC's or endocrine disrupting chemicals that we're concerned about tended to be higher in these women in these products that are marketed towards and used by Black women. And that really was important because I think it provides a piece to the puzzle. As I said it, it didn't answer like well there you have it, that's why you know Black women are more kind of overburdened by some hormone mediated diseases. We didn't answer that, but it is in a very important piece of that puzzle is to try to document what are actually these chemicals are that are in products that might be used by women of color.

TAMARRA JAMES-TODD

Absolutely, and I and I do think you know, Robin. I think I think I mentioned this to you years ago, that when I first started looking at hair products, for example, there was this very like "why would you want to look at that? We already know", you know, but there was nothing out there and without that information and what you know you all are doing at Silent Spring you know there really can't be some of these needed, you know, changes at all different levels you know ranging from the individual level all the way to policy and also social change needs around what we define as beauty. So, I I just want to end with a final question. Which is ,you know, what would you say the way forward is for us to improve, you know, this issue of beauty justice?

ROBIN DODSON

I mean, I think I can answer that on kind of different levels. I think from a research perspective I think kind of where I see this space going is that I do think that we need to kind of take the next step where we've done a bunch of studies that are documenting these inequities and to now try to develop community informed interventions to support people as they are trying to make different decisions and that could be at the not only interventions at the individual level, but interventions that might happen at the community level or you know even broader kind of national level, so multi leveled, but community informed interventions to help people limit their exposures. Now that said, I think like as an individual what I think people should do is, I think they should call attention to these issues, and I think we need to keep talking about them. The majority of people do not realize that chemicals do not need to be comprehensively evaluated for safety before they are used in products that you would every day, and to me that is a it's an issue of not we should be making some noise about this, like the fact that people that people think that the government is protecting them from these harmful chemicals. It's really. It's kind of, why aren't we jumping up and down about this? And so, what I think I can do, how I think I can jump up and down about this and not only kind of, you know, shine a research light to this, but I also can get involved, right? Like as an individual, you know, it's important for me to vote. It's important for me support policies that will increase transparency around products, that will increase access to safer products, healthier products and to just start making some noise around these issues. It could even be start making some noise by calling up your favorite brand and saying, hey, does your you know does does this my favorite hair product have XYZ in it and just making some noise about it. I think that's gonna be really important and is really how we kind of we'll start seeing a shift and that's what I think

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people should do is kind of let's let's start making noise and calling as much attention as we can to these issues so that things will start to change.

TAMARRA JAMES-TODD

So, Robin, for the for the person who is hesitant because they feel that you know safer products means that it's not going to be as effective, it won't help them achieve the beauty standard they're trying to reach. You know, is there a way to for them to reimagine that to not think that safer products are not as effective.

ROBIN DODSON

Oh, certainly I think there's a tremendous amount of work, especially in the last couple of years in this space where I think there are some really some beauty brands out there that are really making some strides in that space. But this is actually to kind of bring it back from a to a community kind of perspective is that I think and then we see this right when we ask folks where do you learn about products? They're saying their friends and their family, and we ask where they also say things like social media and that actually leads to a kind of a kind of an approach that we're taking more recently, actually about sharing some of this research with different kinds of communities, and that is actually work that actually is being led by a postdoc at Silent Spring, Elissia is doing some great work, she's kind of taking this research and we are working with social media influencers to spread the word about kind of like hey, do you know that there's you know chemicals and products that can harm your health? Do you know that that there are like tips to try to reduce your exposure like? Kind of to spread the word, but to do it in a way that we where we think women are actually listening. And that is in the social media space, so this project it's called the Power Study, so Product Options in Women Engaged Research. It's a collaboration with the Resilient Sisterhood Project here in Massachusetts, and it is very much trying to just spread the word and generate a like start a conversation around some of these issues in spaces that haven't yet heard of it, potentially.

TAMARRA JAMES-TODD

I love that I love that you were absolutely taking a multi-pronged approach from working with community organizations to really thinking about the role of social media, thinking about the impact of environmental health literacy or education, and you know from the social constructs of beauty to the individual who you know empowering them to make choices that could help reduce their exposure. So, Robin, this was a delight, it was wonderful to spend time with you today—were there any other points that you wanted to make sure that we covered or that you wanted to share with us?

ROBIN DODSON

No, this has been wonderful and it's wonderful to speak with you because I know you have been working in this space and shining a light on these issues for many years. So, I'm so glad we got to have this conversation.

TAMARRA JAMES-TODD

Thank you, thank you for joining us today.

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LISSAH JOHNSON

A theme that has carried through the last couple of episodes is that moving towards beauty justice will take a multidisciplinary approach and is most effective and innovative when we work collectively. There are ways that these individuals can try to prevent exposures through our choice of products, but, really, these are systemic issues, so we'll need solutions at the corporate and the institutional level. As Robin and Tamarra highlighted, chemical regulations need to be more stringent—the FDA, which regulates cosmetics, requires companies to sell safe products and properly label ingredients. But it's the companies that are responsible for approving product safety with very little oversight from the FDA. Making noise about this inadequate regulatory system to your elected officials, or about the questionable ingredients directly to our favorite beauty brands is a way to hold these entities accountable. There are also databases that provide safety ratings on beauty products that can help you make more informed choices. Check out some of these resources, including Campaign for Safe Cosmetics Non-Toxic Black Beauty Database and Silent Spring Institute's Detox App which will be linked in the episode description. Thank you all so much for tuning in to this episode of Beauty + Justice. Use our hashtag #beautyplusjustice all spelled out to sound off on your favorite social media platform or leave us a review. Be well and join us next time for a look at pregnancy health risks associated with cosmetic exposures and some clinical recommendations with Dr. Blair Wiley and OBGYN. This episode was produced and edited by Marissa Chan, Lissah Johnson and Felicia Heykoop with assistance from Ilkania Chowdhury-Paulino. We received funding from the Environmental Defense Fund.