

[ICPSR Data Brunch Podcast Episode 5: Baby Brains and Sleep](#)

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Transcript

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Dory Knight-Ingram: Hey, everyone. Welcome to Data Brunch with ICPSR. If you love data, this is going to be food for thought. I'm Dory.

Anna Shelton: And I'm Anna.

Dory Knight-Ingram: We're recording these episodes live from our remote offices, so please excuse cameos from canine colleagues, kids in class, and other unexpected moments.

Anna Shelton: Dory, I wanted to give a quick shout out. I just found out about a Summer Program class that I really want to take and I wanted to tell you about it and to everybody who's listening too. If you haven't been to our Summer Program, it's a total blast. The Summer Program is a training opportunity and one of our goals is to kind of help expand the analytic skills for people who are using data. So that may be graduate students, that might be faculty, that might be research scientists. It could be people from the public sector.

You don't have to be a data analyst to come to our Summer Program. I am not a data analyst and I loved our Summer Program. The class that I took was phenomenal. And we have journalists and librarians and all kinds of professionals coming every year. And this year, of course, it's all virtual, which makes everything even easier to come to, but I was looking at our Summer Program classes and the first short class is going to be ... It's called Rachel ... Rachel. It is not called Rachel [laughter]. It is called Racial Identities and Politics and it's taught by Ashley Jardina from Duke University. Dory, do you know her work?

Dory Knight-Ingram: I am not familiar. Sorry.

Anna Shelton: No, that's okay. I think that you do actually and you don't know it.

Dory Knight-Ingram: I know the name.

Anna Shelton: Yes. We've talked about this before, and that was why I completely flipped when I realized that she is teaching this class.

Dory Knight-Ingram: Okay.

Anna Shelton: So you probably ... I think we were talking about this, about her book, which is called White Identity Politics.

Dory Knight-Ingram: Okay.

Anna Shelton: And the workshop, it just looks ... It sounds amazing. So the description is that this workshop will focus mostly on the nature of racial identities across different racial groups and it will consider the ways in which racial identities have become more or less salient components for measuring ... Or excuse me, hang on. And it will consider the ways in which racial identities have become more or less salient components of American political discourse over the last decade or so, which is just fascinating. And particularly, it's going to cover the best practices for measuring identities using survey methods and looking into the theoretical expectations for which those identities are associated with different political preferences and behaviors.

So I just think this is completely fascinating, especially thinking about the elections and how the political climate has changed over the last years. I completely flipped when I saw this class coming up. I'm going to see if my boss will let me take it because holy wow, it sounds incredible.

All right, do we want to talk about unicorns here?

Dory Knight-Ingram: Let's talk about unicorns.

Anna Shelton: Dory, Happy National Unicorn Day.

Dory Knight-Ingram: Happy National Unicorn Day to you too, Anna.

Anna Shelton: You know, I was going to look this up. Let me do a quick search. Okay, look at this. We have 33 studies that have something to do with unicorns. Is that ...?

Dory Knight-Ingram: I'm not surprised.

Anna Shelton: I'm not surprised either, but it is so ...

Dory Knight-Ingram: This is ICPSR.

Anna Shelton: It is. This is ICPSR, you can find data on anything. Wow. Fascinating.

Dory Knight-Ingram: I want to see those variables though. We might have some really good social media posts coming up.

Anna Shelton: Yes, totally. We'll link to the search in the show notes because I just think it's so fun that there's data on unicorns. Some of it, The National Study of Learning Mindsets, I would be really interested to know what that data was. Very cool. So of course, in data and current events, not only is it National Unicorn Day, but of

course, data is being used in recent papers and such and we always like to talk about where we're finding ICPSR data that is being used out in the real world.

So there is a recent paper that uses ICPSR data and the paper is titled Misogynistic Tweets Correlate With Violence Against Women, and I think that this is a really important paper to be bringing up because this is a paper that's looking at how social media is affecting the real world. So this paper is in the Journal of Psychological Science and the paper is by researchers Blake, O'Dean, Lian, and Denson. And again, that paper is called Misogynistic Tweets Correlate With Violence Against Women.

And specifically, these researchers were looking at if exposure to misogynistic tweets would predict future domestic and family violence. And the researchers ... Oh, you might hear my dog in the background. Katie is incensed that people looking at tweets would be affected by this to do harm to their own families, and I am too, Katie.

The researchers here use the FBI Uniform Crime Reporting Program data, so that's something that's available at ICPSR, and they looked at offenses against the family and children, and they looked at that along with geo located Twitter data on misogynistic tweets. So this is just a totally fascinating paper.

If you're interested in reading this or on doing similar research, you can of course, find out more about this in our bibliography of data related literature, which we will link to in the show notes.

Dory Knight-Ingram: Yeah, it really gives a different ... Puts a different spin on some of the things that you see on social media, and you can see how it affects things in the real world or how it correlates the things in the real world.

Anna Shelton: Yes, totally. And if it's ... I mean, affecting children, that just breaks my heart.

Dory Knight-Ingram: Yeah, I also found it interesting, this is kind of random for me, but so social media, Twitter is the one... I have my profile pictures and Twitter is the only one where I'm not smiling because that is Twitter for me. It's not the place where you go for smiles, it's just really ... Sorry, Twitter. But it's like hardball in there, or should I say dodge ball in there, where it's different from the different platforms and behavior is even different, I think, on Twitter.

Anna Shelton: Yes. Yeah, and I mean, it's fascinating to hear that you have even changed your behavior because of the way that the algorithm that you are seeing, the things that you're seeing because of Twitter's algorithm have changed the way that you personally behave on that platform. That is really interesting.

Dory Knight-Ingram: Yeah, I have to put on my game face when I go out there on Twitter.

Anna Shelton: Yeah. Yeah.

All right, so we also have some new and updated data. We always do, but we like to share what new data is available on ... Because ICPSR is known for a lot of things, and one of those things is being a really great data resource. So if you need data, if you're a student and you're looking for data for your papers, or if you're a researcher, if you're a journalist, you can use these data for articles.

So some of the new data that came out and we have new studies that are coming out all the time, but one interesting one that just recently came out is called Project Positive Attitudes Towards Health, and this is in Michigan in 2017. And this is part of a larger study, which was supported by the National Science Foundation, and it includes some really interesting topics. So it includes general health and also mental health, as well as drug use and healthy risk ... Or excuse me, health risk behaviors, healthy or not, sexually transmitted diseases, HIV, sexual orientation, and healthcare service utilization, as well as socio demographics. So if any of those is something that you're interested in or that you're doing research on, this could be a really great study for you.

We also wanted to say there are new updates to the Chitwan Valley Family Study, Changing Social Contexts and Family Formation in Nepal. And this study is particularly useful because it is so long running. These data include 1995 to 2017, and in the updated data, we have data on the influence of changing social contexts on family formation behaviors, as well as marriage and childbearing and contraceptive use. So this is all incredibly interesting data if you are looking at families and international families, and this is also particularly interesting thinking about our guests today, who will be talking about maternal health and stress levels and how that affects babies. So Dory, I will let you take it from here.

[music playing]

Dory Knight-Ingram: Well, hello everyone, and welcome back. We are really excited to have ICPSR's Tamara Qawasmeh here. Tamara is a data project assistant at ICPSR and Tamara is here to talk to us about a recently published paper titled Maternal Stress During Pregnancy Alters Fetal Cortico-Cerebellar Connectivity in Utero and Increases Child Sleep Problems After Birth. So there are a lot of really good keywords in there that I'm interested to hear about, especially as a mom. So welcome, Tamara.

Tamara Qawasmeh: Thank you, Dory. It's an honor to be here.

Dory Knight-Ingram: So can you tell us more about your paper today?

Tamara Qawasmeh: Sure. So it is a mouthful, and in short, it just means that we're going to talk about baby brains today.

Dory Knight-Ingram: Baby brains, yay.

Tamara Qawasmeh: Yeah. Well, at first I would like to just give a shout out to all the folks that worked hard on this paper, especially Marion van den Heuvel, Jasmine Hect, Benjamin Smarr, Lance Kriegsfeld, Jeanne Barcelona, Kowsar Hijazi, and Moriah Thomason. There's a lot of folks that worked on this paper, so shout out to all of them in their hard work.

And so I guess we can start off with the purpose of the paper, so it was ... We were just investigating the relationship between maternal stress and negative affect during pregnancy, and what found was that high maternal negative affect and stress during pregnancy is associated with decreased cerebellar-insula functional connectivity in fetuses and increased sleep problems in toddler hood.

And what's more fascinating is that our results on mother reported sleep suggests that males are actually more at risk of developing sleep problems in response to prenatal exposure to maternal stress later in life. And we didn't actually see the same pattern in females, so that was definitely something that we thought was very interesting. And in layman's terms, just to summarize what I just said, what this means is that being stressed during pregnancy could prove to affect a child's sleep behavior even years after they're born.

Dory Knight-Ingram: Well, we must make sure to get this podcast out to the audiences where new parents might be, because this is really intriguing. Thank you. So you've already told us a little bit about the story behind your paper, tell us more about some of the stories that you've been able to uncover during your work?

Tamara Qawasmeh: Yeah, it's a great story because we're starting to see how the fetal brain develops. We're able to find out whether or not they're at risk for developing problems after birth and maybe even solving those problems before they're born.

Dory Knight-Ingram: Okay, and would you say that this is a unique project or what makes it particularly unique?

Tamara Qawasmeh: Yeah, so what makes us unique is that we're starting to see what the fetal brain looks like, so we're using functional MRI to map out the patterns of activation in the different regions of the fetal brain network and so we're looking at more than just the physical brain. We're looking at how the fetal brain is communicating and making connections in utero by taking an image of the entire system.

Dory Knight-Ingram: That sounds very good. How did you get into this type of research?

Tamara Qawasmeh: Well, at the time, so I was an undergrad and I was studying public health. I was also studying medical anthropology and nutrition science, just trying to get an idea of what it is I wanted to do with my life. And when I wasn't in class, I was working at Beaumont Hospital in the nutrition department serving food to patients, families, doctors, staff, the whole hospital. I think that I'm probably the

only person a patient was happy to see, mostly because I was always there with a meal and a conversation and no one was ever really upset to see me unless I forgot dessert. And so a job posting had been sent around that a neuroscience research lab was looking for an assistant and I really wanted the job. And so when I got the call, I was pretty much over the moon.

Dory Knight-Ingram: So you talked about ... Let's just kind of back up a little bit. You talked about delivering food to people, so since this is Data Brunch, tell us some of your favorite food memories from those days.

Tamara Qawasmeh: Well, there's a lot. Delivering food, I was going to patient rooms and handing them their trays, and a lot of the times folks at that point may have been in the hospital for days or weeks at a time, and so sometimes I would get to know these people and just come in every day getting a good conversation with them, checking in to see if they needed anything. Don't tell anyone, but sometimes I would sneak in an extra jello cup to make their day a little bit better.

I don't know. I mean, I think that the most memorable times working in that position was just having those conversations with people and just getting to know them because some people just really needed to talk. I mean, it can get really boring just sitting in a hospital room for a whole day, even days at a time. So just being able to, again, bring that human aspect back to the field was really important to me.

Dory Knight-Ingram: So you mentioned that a connection that you kind of built with some of the mothers in the research. Can you talk about the kinds of stress that the mothers were experiencing?

Tamara Qawasmeh: Yeah, I mean, there was a lot of ... They all varied. There were definitely independent situations for each family that we were working with, and sometimes that could have meant that they were living in a home that wasn't very well suited. Some of these folks may have had homes that were infested even with cockroaches. Some people didn't have homes and were living in homes with multiple families, and so that in itself is just stressful, trying to find a place for your family to stay and be safe and healthy.

And beyond just the housing situation, many of these families also had to maintain healthy relationships with the rest of their family. Especially if you're living in a home with a lot of people, it's just all around stressful. And so you could see that these stressful factors reflect in this study in particular because you can imagine that if you are a child and you're trying to sleep that you might not get the best sleep if there's a lot of people walking around the house, if there's a lot of light pollution. And so we did notice that during this process, and so those are some of the things that could definitely affect a mother's stress levels.

Dory Knight-Ingram: So could you separate out how the baby's sleep problems were caused by the stress levels that the mom had during the pregnancy?

Tamara Qawasmeh: Yeah. And so during the study, we did measure the child's sleep behaviors. So we have some questionnaires already set in place, so we use a couple of different scales, such as the Child Behavioral Checklist, so CBCL, and this actually is a scale that is widely used and it's validated, so we use it in toddlers to assess the common reported sleep complaints that we would see in these children. So specifically we're checking to see if the toddler resists going to bed at night, if they don't want to sleep alone, or if they have trouble getting to sleep, if they wake up often in the middle of the night, or if they have nightmares or if they talk or cry in their sleep. And so we use those factors in understanding the sleep behavior in these children in relation to how the mother and how her stress levels were during her pregnancy, and that's where we found the correlation between the two.

Dory Knight-Ingram: So I want to note that the paper that we've been talking about today will be in our show notes. How can our listeners find out more about this or contact you about it?

Tamara Qawasmeh: So you can look for more information on the subject if you look at some other papers that are related to this new publication. So if you look up, especially Moriah Thomason, who is the principal investigator on this research project, and you'll be able to find a lot of information, especially about the origins of the fetal brain and how we're mapping out the fetal brain in utero. So this is a pretty big project that she's been working on and you can definitely find out more information that way.

Dory Knight-Ingram: So we already talked about food memories in the hospital. What are some of your favorites brunches, since this is a Data Brunch or thee favorite brunch for you?

Tamara Qawasmeh: Man, I could always go for a good old tofu scramble.

Dory Knight-Ingram: Oh, yes.

Tamara Qawasmeh: I know. It's so good and hash browns. I'm a big potato fan, so just slap on some potatoes on my plate, let's call it brunch.

Dory Knight-Ingram: All right. Let me know when it's ready. Tofu scrambles changed my life. It did.

Tamara Qawasmeh: They are life changing. I mean, it's so easy to make, so I'm so glad there's another fellow tofu scramble lover here.

Dory Knight-Ingram: And tofu scramble with hash browns inside, I might have to try that next time.

Tamara Qawasmeh: Or like a vegan breakfast burrito, just wrap it all up in one.

Dory Knight-Ingram: Yes.

Tamara Qawasmeh: Potatoes and tofu.

Dory Knight-Ingram: Oh, and some hot sauce. Yes.

Tamara Qawasmeh: Oh man, I'm hungry.

Anna Shelton: All right. Awesome. Thank you so much, Tamara. I have a son and I was stressed during pregnancy and I see him having sleep problems, so it is so interesting to hear this and I can't wait to read your whole paper.

So a few things coming up from ICPSR, and of course, if you're listening to this episode at a later date, you can always visit icpsr.umich.edu to find out about our upcoming events and our current job listings and so much more. But we are so excited. We are hiring. I know I say this every episode, but we're actually hiring really a lot, and it's pretty exciting to be here because there are so many other places who are having to limit their staff right now and we are growing.

So some of our current open positions, we're hiring a lot in the technology area so we have associate full stack software engineer, a senior digital product designer, a lead dev ops engineer, dev ops is "D-E-V O-P-S," dev ops, and a lead full stack software engineer. So we have those four positions that are open right now and probably by the time you hear this, we will have another position or two posted. So please do check those out.

Our Summer Program is beginning in May and our early bird tuition rates are open through May 1st, so make sure you get your registration in now. And just like last time, we are still open to nominations for our Council, which is our executive committee for ICPSR as a whole and as well for our ICPSR awards, which are for distinguished work in the social sciences. And you can find more information about that on our website and we would absolutely love to hear your nominations. This is a great way for us to get some really incredible voices recognized. And then finally, we want to give a special congratulations to our very first ever guests that we had on Data Brunch, Shane Redman is now Dr. Shane Redman.

Dory Knight-Ingram: Congratulations, Dr. Redman.

Anna Shelton: Congratulations. We're so excited for you. So Dr. Redman successfully defended his dissertation just a few days ago, and we're so excited for you. Congratulations, Shane.

Dory Knight-Ingram: And that brings us to the end of today's episode. Thanks for being with us.

Anna Shelton: So we are really looking lean forward to our next episode. We get to talk to one of our colleagues over here at the University of Michigan Institute for Social

Research, who is studying how cruise ships and tourism can affect the economic status of women in third world countries. It just sounds fascinating, so we're really looking forward to that. And of course, for links to data and everything else that we talked about today, please visit our show notes, which are at icpsr.umich.edu.

Dory Knight-Ingram: And if you aren't already subscribed to us where you get your podcasts, we're on Apple podcasts, Spotify, SoundCloud, and more.

Anna Shelton: And thank you as always to the ICPSR membership. This podcast would not be possible without the ICPSR members. And if you're new to ICPSR, we are a member organization so we have about 800 member institutions around the world, and chances are, if you are a student or if you're a researcher, if you're affiliated with an institution, you may already be a member so go to ICPSR.umich.edu to find that out. And again, thank you because we absolutely could not do this work if it wasn't for you.

Dory Knight-Ingram: I second that. Thank you, ICPSR members. And if anyone wants to get in touch with the Data Brunch team, you can reach us by visiting our website, ICPSR.umich.edu or emailing us at ICPSR-podcast@umich.edu.

Anna Shelton: Thanks everyone. I'm Anna.

Dory Knight-Ingram: And I'm Dory, and thanks for joining us at ICPSR's Data Brunch.

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