

Episode 190: Headache and Migraine News, July 2024

Lindsay Weitzel:

Hello everyone, and welcome to HeadWise, the weekly videocast and podcast of the National Headache Foundation. I'm Dr. Lindsay Weitzel. I am the founder of Migraine Nation, and I have a history of chronic and daily migraine that began at the age of four.

I am super excited to be here today with Dr. Tim Smith. Hi Dr. Smith, how are you?

Tim Smith:

Doing well. Thanks for having me again as always.

Lindsay Weitzel:

Well, thank you for being here.

Many of our followers know that when Dr. Smith is here, we are doing a news episode. We will talk about some of the best studies that came out recently around headache and migraine. He has a lot of experience in migraine clinical trials as the CEO of StudyMetrix Research. He also is a board member of the National Headache Foundation. So, we're very excited he's here, and he always has a lot to tell us about the relevant studies.

So, we are going to start with one today that has to do with a study that came out just in the last few weeks. A group got together and tried to predict pain severity in migraine in a group of people who had chronic migraines. This group looked at a lot of factors that went into predicting pain severity, but what did they find out that was important in predicting what makes us so miserable?

Tim Smith:

So, basically what they did, was they did this as a prospective study. They signed up patients with chronic migraine, and then they tracked their symptoms and performed questionnaires over a 90-day period. They tracked a lot of migraine attacks and they were looking at something called their peak pain levels. And this was basically just what it sounds like. It's the highest.

Then they were able to divide the patients into two groups: those with extremely high peak pain levels and then the other group of more moderate peak pain levels. They were both chronic migraine populations, but the one population had higher levels of peak pain as compared to the other group.

And then they set about to look at statistical differences for what was going on, what else was going on with those patients. And looking at the results that they came up with, statistically the

patient group with the higher peak pain levels reported scores that showed higher degrees of stress, irritability, sadness, fatigue, eye strain, neck pain, skin sensitivity, and dehydration.

Sort of interesting that those are the ones that we talked about a lot of these factors all the time as being part of migraine, part of the process, and some of those even possibly trigger events, strain and dehydration, those kinds of things. And then the less impacted group, separated for two categories: one was better standardized sleep quality and feeling refreshed upon awakening. And those were the characteristics of the group and their attacks and their symptoms that they had that separated.

And I'll point out that this is not saying cause and effect. This is, again, associations that they found statistically with this (study). But I thought it was pretty interesting that those certain categories were aligned up with what you might think that migraine patients with higher peak pain might report. It was kind of intuitive on some levels, but it's when you see some of the statistics on that, the neck pain, the dehydration, the skin sensitivity, and the eye strain ones were pretty powerfully separated. The others were statistically separated, but only by a few points. But I think that points to what the life of a severe chronic migraine sufferer is like.

Lindsay Weitzel:

Right. And I think I wanted to point out, in case someone else is thinking this with me, having been someone who's now in my late 40s and my migraine started to show up when I was a toddler. It changes so much as I age. What these things are that show up, so I find that very interesting.

We're going to move on to our second study. This one is super interesting, especially because we have, a lot of moms and females with migraine in our audience. And this was also carried out by some of the researchers that we have on the podcast really often. So, I really am excited to talk about this one.

It's really interesting. It's related to parents who have migraine and their children. And it sort of talks about, it speaks to how a lot of moms, I think, historically get blamed when they have migraine and then one or more of their kids shows up with migraine. And you talk to a population who doesn't understand migraine and the genetics and they kind of get blamed like maybe if you didn't talk about migraine so much, your kid wouldn't be so sick. Believe it or not, even with what I do for a living, I have had some very interesting people mention that to me before. So let's talk about this study, because it sort of delves into that stigma a little bit.

Tim Smith:

Yeah, it kind of does. And what these researchers did is this was what we call a secondary analysis. They took data from a big database that has been collected. It comes from a study called the Family Burden of Migraine study.

And it's a big, big database with lots of information about families and relationships and mental health characteristics and migraine intensity and how people cope and all those kinds of things. And what these researchers did is they looked at this question about offspring or children of migraine patients and this notion that it could be some maladaptive parenting style or something that tends to create problems for children. We know that parenting style does influence kids in a lot of ways. And all the previous work that's been done on this, basically, they would go out and find children with migraine, adolescents and children, and then they would look at their parents and see what was going on with the parents.

And not surprisingly, the parents tended to be patients with migraine and some of them do have mental health issues. And so the presumption has been that combination makes for high likelihood of migraine development in kids. And what these researchers did, they took this big database and they turned that question around. And instead of starting with, with the children with migraine, they got started with the parents.

And then they looked at their mental health characteristics, saw the questionnaires that identify anxiety and depression and sleep disturbance or other mental health coping issues that we know are common these days. It's not uncommon for people to have those, but they were able to look at these parent-child dyads, sort of that partnership between the parents and the kids. And they could separate the parents based on the presence of mental health challenges or the absence of them. They're all migraine patients, but whether they had mental health scores that indicated problems or not was how they separated them into two groups. And so they started with that.

Those are the study groups. And then when they looked at the children from each of those, the population of the children looked the same. So it was not that the mental health presence or absence of mental health was contributory to the onset of migraine or development of migraine in children. It was really probably more genetics, more nature than nurture, we might say.

So that kind of goes a long way to help us understand that relationship and kind of points out some of the flawed thinking that you were describing earlier, that it may be parenting issues or skills that may be causing these children to have migraine attacks and by this study does not appear to be the case.

Lindsay Weitzel:

Yes. It's kind of showing that there is this huge genetic component to migraine and much of our symptoms and I thought that was quite an interesting study. And I want moms to be able to listen to that because it does help relieve some of the stigma that a lot of us are exposed to.

So, the next study that we were going to talk about has to do with the fact that studies have shown that the brains of people with migraine tend to process information a little differently than the brains of people who have never experienced migraine.

But we often talk about things like sensitivity to light or sensitivity to sound separately. We talk about them in a vacuum. This study looked at multisensory integration in women with migraine.

What does that mean? And what were the results of this study?

Tim Smith:

I think this was an interesting study. It was an observational study that they recruited patients to participate in, and they got migraine patients and people who don't have migraine to participate in. And then they let them play video games.

So, not a bad study if you like video games. But there were two different approaches to the video games that they used and in one they used just visual stimulation. If you've seen video games before, there's a lot of activity going on. There's, especially some of them, bright lights flashing, there's noises, there's lots of things going on.

And so they had just the visual stimulation with the video game. That was one study intervention. And then the other one that they compared that to was something that incorporated multiple sensory inputs, sort of like the surround sound.

If you're old enough to remember the movie theaters back in the 80s and 90s that incorporated surround sound where the chairs actually vibrated or moved and there was lots of sensory stimulation, which, by the way, a lot of our migraine patients didn't like those theaters very much. And I think we're kind of starting to understand why.

Because the study showed that patients, if you compare migraine patients to non-migraine patients, if it's just visual stimulus, their performance on the games are identical, equal. There's no deficits there. But when you have to integrate multiple sensory inputs, with the surround sound sort of approach, that's when the migraine brain doesn't perform as well. And so the scores were significantly lower on accomplishing the tasks of the video game.

They had to follow another character on the screen and do some things like that. And the migraine population, if you'd had multiple sensory inputs, they started to falter on their scores.

And so, you see with your eyes, you hear with your ears, you smell with your nose, you feel with your skin, and so on and so forth. Taste. There's all these different sensory inputs, but they're all integrated in a specific area of the brain.

And so these researchers kind of taken this result and they see this as a problem not so much with overstimulation of the senses, but a problem of integrating multiple sensory inputs together.

And so, you can think about all the things that go on at a theme park for example. You take your children to a theme park and your migraine kid might not make it through the day with all of the motion and smells and lights and heat and whatever else they're exposed to. And they have to integrate all that in the center of the brain. And when that starts to fall apart, then they start to fall apart. And so that may be a little bit of a dramatic example of that happening. But I think when you start to think about it that way, you can really see what these researchers were getting at.

And it was interesting that their research does point to that. So, it's a clustering of these events, not just a single input. We know that single inputs, bright lights flashing, flashing lights, loud noises, etc. can be a problem for migraine patients. But they don't tend to suffer, say, job performance, for example, unless, the suggestion is, that they're having a problem integrating all of that sensory input effectively.

Lindsay Weitzel:

Right, I really like that study and it actually helped me to understand one of my children a little better because I think they have more of a problem with that than I do. And like just the sound and everything coming all at once. And so I thought that that was a very interesting study.

So, we do have one more study to talk about. This one's out of Canada, and this is another one for the moms and the women that might be listening. This had to do with women who were breastfeeding. And we found an interest, they found an interesting trend among women who were breastfeeding and had a history of migraine.

What did they find?

Tim Smith:

Yeah. So, this is another one of these analyses within a huge database of information. So, all this information is captured through the Canadian Health Survey study. And so these researchers took that big database, which contains information not only about migraine, but it's about health in general and lots of other inputs into health and outcomes and those kinds of things.

And when they compared comparably sized populations of women who had given birth, who had had children and they put together two similar groups, one migraine patient population and the other a non-migraine population. And they looked at differences specifically with respect to breastfeeding.

And this is an interesting, sort of, research venture. And it was kind of the interesting results showed that patients with the women with migraine tended to be much less likely to breastfeed exclusively for as long as the women who didn't have migraine.

And so this is kind of a cross-sectional study. There's not like a root cause analysis kind of thing on this, but you see those associations and then it makes you wonder, well, why, what's going on. And one of the criticisms of the paper could be that we just don't have that information, but it could tell us how to design the next study so that a lot more information is captured to sort of understand the relationships better.

Lindsay Weitzel:

Right. One of the things that comes to my mind is it makes me wonder if some of these women weren't comfortable taking some of the medicines they might need while they were breastfeeding, and they wanted to start taking them again. I can think of a lot of reasons actually, that that might occur, but we don't know because they didn't the study wasn't able to quite go that far. But I did find that it was interesting.

Was there anything else that you would like to add before we close out our news episode today?

Tim Smith:

I think that about does it. We've covered it pretty good. So, I guess we'll just let it go at that and see what other interesting things they have next month.

Lindsay Weitzel:

All right. Well, thank you so much, Dr. Smith, and thank you to everyone who joined us for our news episode of HeadWise this month. Everyone have a great month. And please join us again for our next episode. Bye bye!