Transcript Details

This is a transcript of an educational program. Details about the program and additional media formats for the program are accessible by visiting: https://reachmd.com/programs/neurofrontiers/disparities-migraine-diagnosis-real-world-data/49216/

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Understanding Disparities in Migraine Diagnosis: Evidence from Real-World Data

Announcer:
You're listening to *Neurofrontiers* on ReachMD. On this episode, we'll hear from Dr. Juliana VanderPluym, who's an Associate Professor of Neurology at Mayo Clinic in Phoenix, Arizona. She'll be discussing her recent study, which explored factors associated with receiving a migraine diagnosis among Arizona Medicaid recipients. Dr. VanderPluym presented this study at the 2026 American Headache Society's Annual Scientific Meeting.

Here she is now.

Dr. VanderPluym:
Working across clinics in Phoenix—from tertiary care centers to outreach settings for uninsured patients—I saw that patients with similar symptoms could be given very different diagnoses. At the same time, we know migraine is still underdiagnosed despite clear criteria, and many patients get labeled with nonspecific headache instead.

This, of course, affects treatment. Based on this, I designed a study to understand how this plays out in safety net populations. We were able to collaborate with ASU and their group to access Arizona Medicaid data, which covers about 30 percent of the state, and designed a retrospective study using data from 2018 to 2023.

We classified headache diagnoses into a migraine cohort, a non-specific headache cohort, and a tension-type headache cohort based on ICD-10 codes, as well as NDC migraine-specific codes. We used regression modeling to evaluate how demographics, comorbidities, and social factors—which were determined through something called Z codes, which are a special type of ICD code—influence the rate or likelihood of these diagnoses.

The main finding is that migraine diagnosis is likely influenced by more than just symptoms. We saw that English-speaking female and white patients were more likely to receive a migraine diagnosis, while males, minoritized groups, and socially vulnerable patients were less likely. Now, the sex difference with the higher likelihood in females aligns with known epidemiological trends, so that was not surprising, and, if anything, reassured us that our data was representative of a migraine population, since we know that migraine is more prevalent in women, especially after puberty, due to hormonal factors.

But the differences by race, language, and social factors raise concern for potential disparities in diagnosis. National health surveys show, for example, that American Indian people self-report higher rates of migraine, yet in our cohorts had lower rates of migraine diagnosis. We also saw strong associations with comorbidities like anxiety, sleep disorders, and chronic pain, which, again, aligns with literature, but there were some comorbidities that actually had lower rates of migraine diagnosis, which was surprising.

Announcer:
That was Dr. Juliana VanderPluym sharing findings from her research on disparities in migraine diagnosis. To access this and other episodes in our series, visit *Neurofrontiers* on ReachMD.com, where you can Be Part of the Knowledge. Thanks for listening!

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