



Leveling the Playing Field: Optimizing Migraine Diagnosis and Treatment in Diverse Racial and Ethnic Patient Populations

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BACKGROUND

Migraine is ranked the most disabling headache type among all headache disorders and directly affects nearly 40 million people in the United States, including 12 to 13% of adults. It occurs most frequently in people aged 20 to 50 years old and is nearly 3 times more common in women than in men.

Symptoms

- Recurrent attacks of moderate to severe throbbing and pulsating pain that occurs on one side of the head.
- Other common symptoms include increased sensitivity to light, noise, odors and nausea and vomiting.
- Symptoms may be exacerbated by routine physical activity and movement (Amico, 2022; Barreto, 2021; NINDS, 2023).

Comorbidities can worsen the severity and prognosis of migraine and impede optimal treatment outcomes. Patients of color have higher prevalence of comorbidities than White patients (Agosti, 2018; Amico, 2022; Burch, 2019; Buse, 2020; Leonardi, 2019; Schwedt, 2019; Torres-Ferrús, 2020; Walter, 2022).

Undiagnosed and undertreated migraine can lead to

- Medication overuse
- Progression and chronification of migraine symptoms
- Reduced QoL (Agosti, 2018; Nelson, 2022).

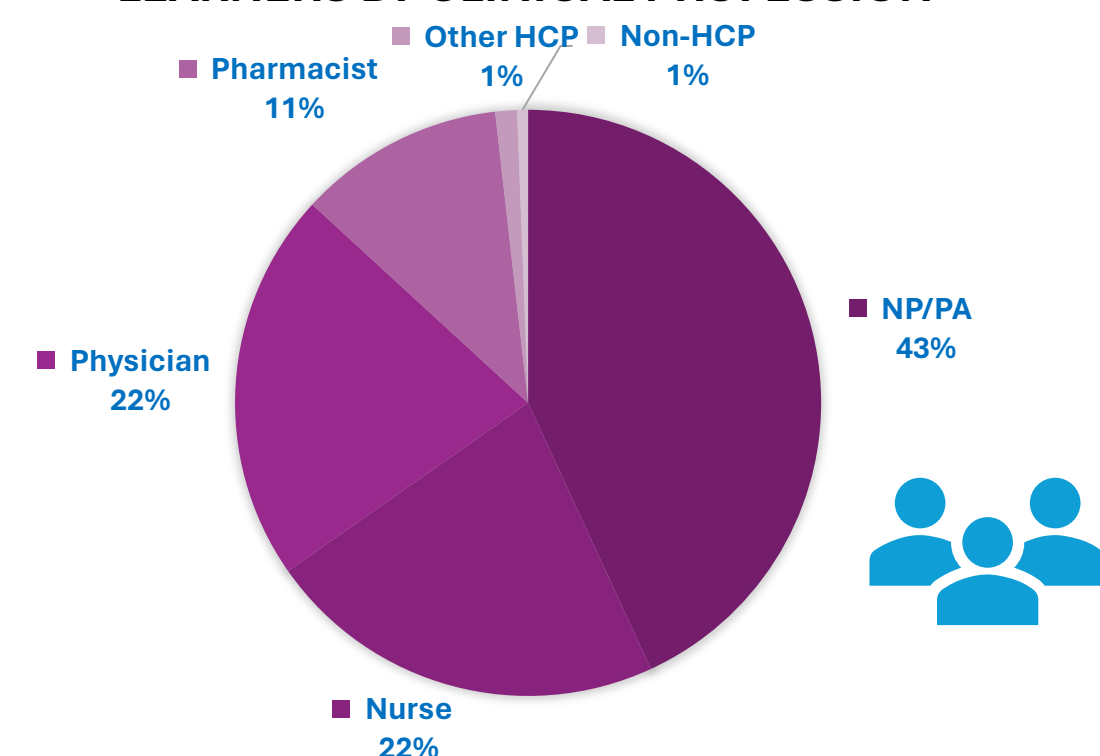
Disparities in Migraine Diagnosis and Treatment

Despite the availability of evidence-based practice guidelines, many clinicians are still failing to recognize and diagnose migraine in practice or provide optimal treatment for the disease (Amico, 2022; Nelson, 2022). Although the prevalence of migraine and headache disorders has been found to be similar for all racial and ethnic groups in the United States, Black, Latino, and Native American populations are still more likely to go without a migraine diagnosis or to be undertreated for the disease (AHS, 2022; Amico, 2022; Meints, 2019; Starkman, 2022).

METHODS

An online, continuing medical education (CME), four-part webinar series was developed. Each webinar consists of a 30-minute presentation led by an expert faculty on migraine. Online pre- and post-tests were administered for each session. A Chi-square without Yates correction, and 2-tailed P-values were calculated for each test question to determine changes in knowledge, competence, confidence, and intent to change clinical practice behaviors.

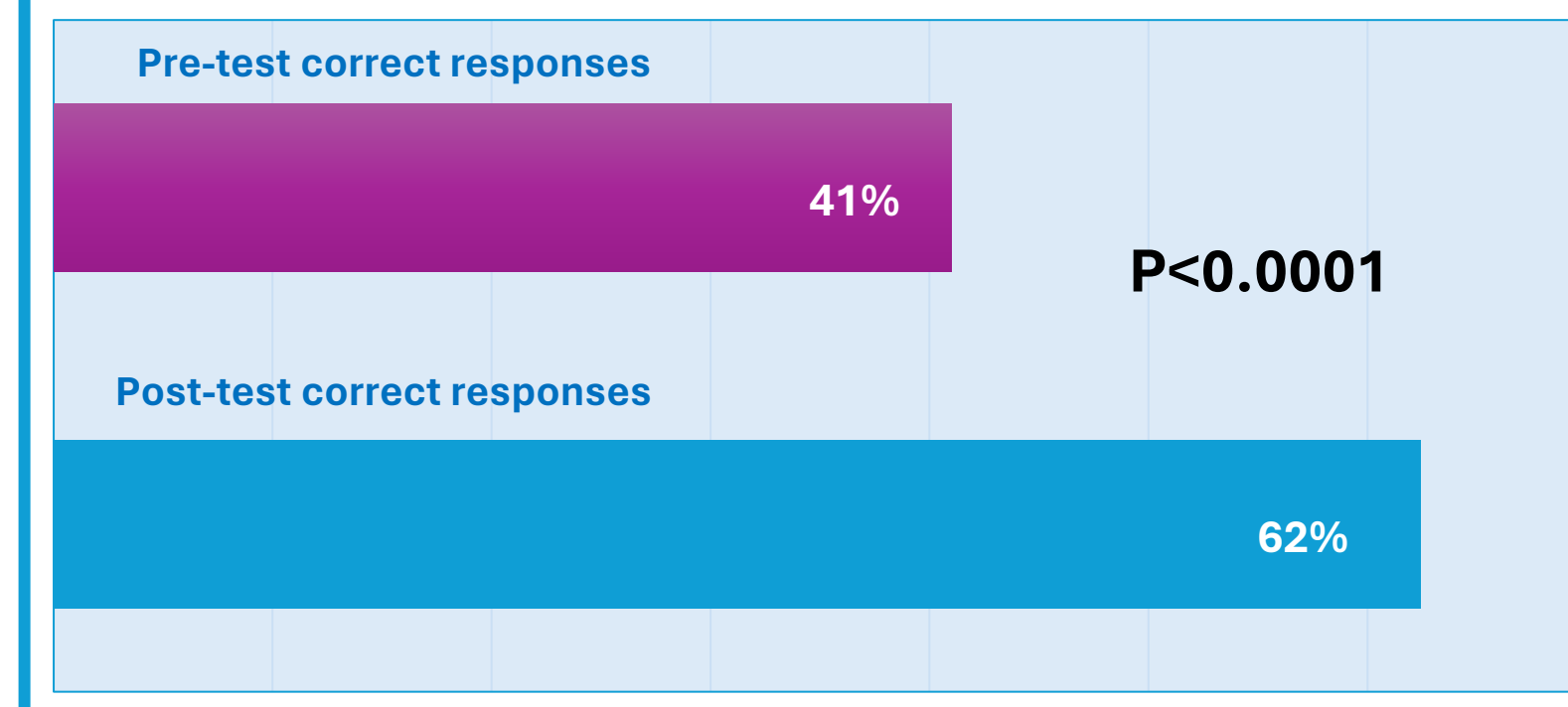
LEARNERS BY CLINICAL PROFESSION



RESULTS

Preliminary outcomes based on four months of pre and post-test data from *Webinar 1 - Mitigating Disparities in Migraine Diagnosis Among Racial and Ethnic Groups: Improving the Recognition and Diagnosis of Migraine in Practice*, showed that learners experienced very statistically significant to extremely statistically significant changes in their ability to recognize and diagnose migraine according to the International Classification of Headache Disorders (ICHD-3) and American Headache Society (AHS) guidelines (P< 0.0001 to 0.0014; N=183 pre-test and N=170 post-test).

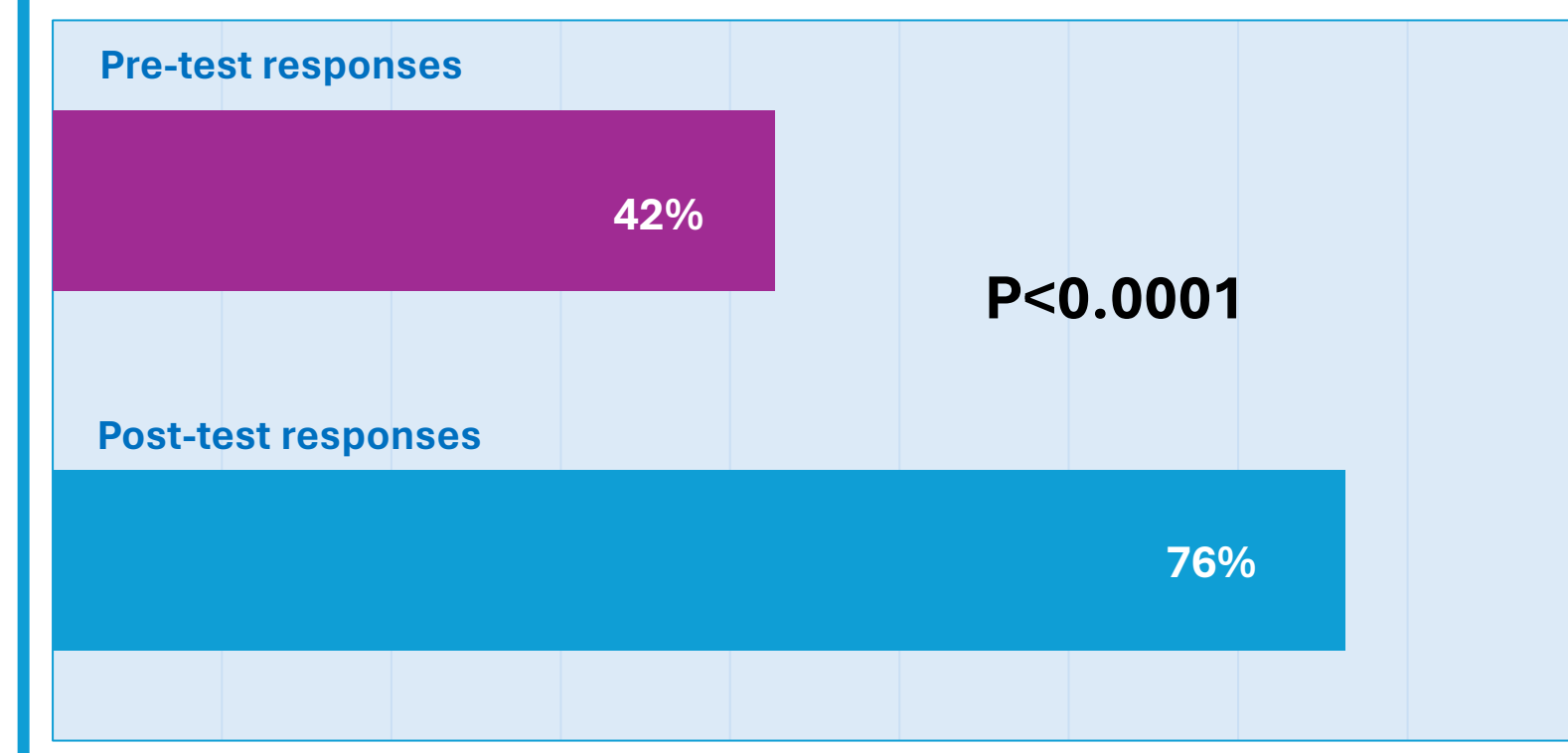
Which racial/ethnic group is more likely than White patients to report allodynia?



- A) Native/indigenous
- B) African American**
- C) Asian American and Pacific Islanders
- D) Latino
- E) Unsure

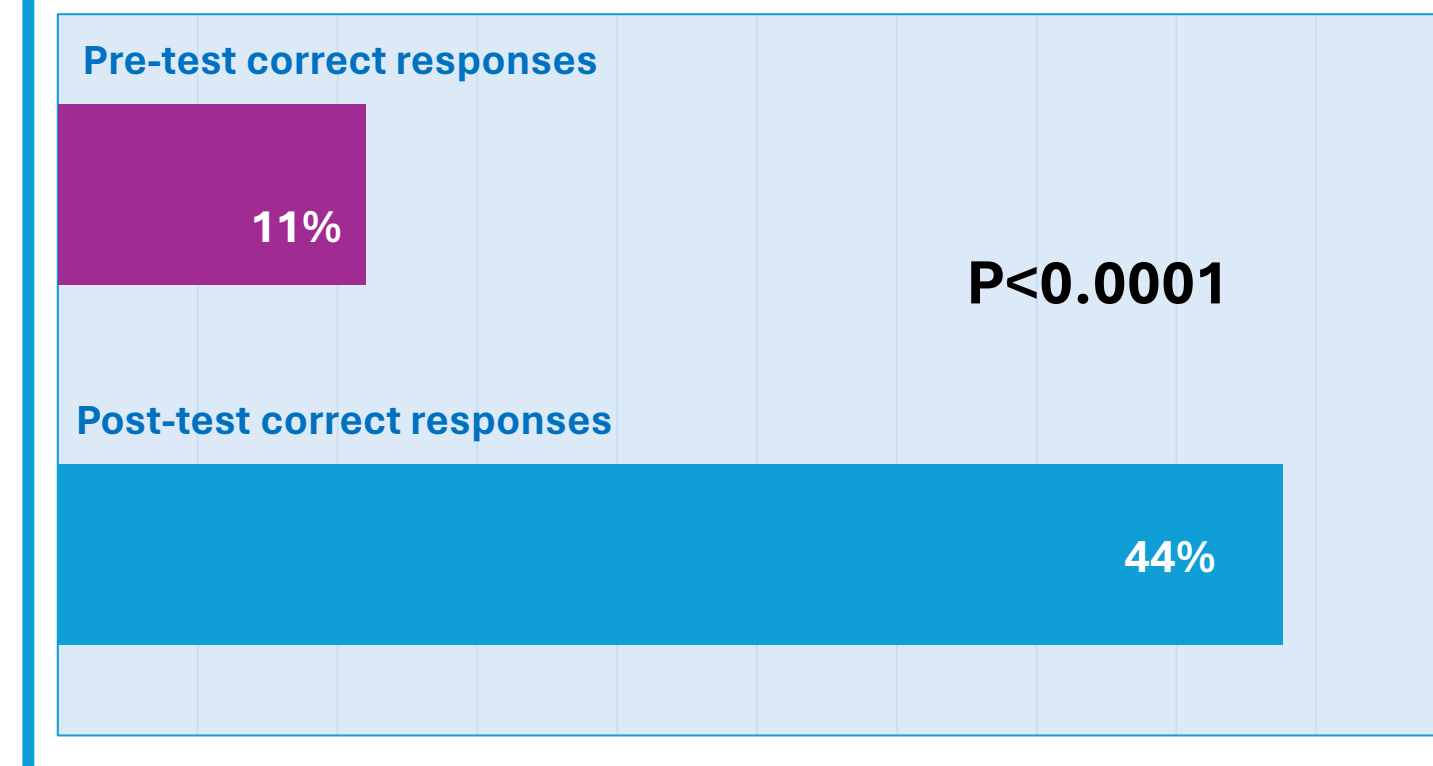
According to pre-test analysis (N=183), only 42% of learners reported that they refer to ICHD-3 criteria "always" or "most of the time" to determine if a patient is experiencing migraine symptoms. However, after education, nearly 76% of learners (N=169) reported that they plan to refer to the criteria "always" or "most of the time" in the future (P< 0.0001).

Referring to ICHD-3 criteria to make a migraine diagnosis "always" or "most of the time"



Preliminary outcomes based on four months of pre and post-test data from *Webinar 3 - Optimizing Management and Treatment Selection in Migraine Care: Acute Migraine Therapies*, showed that learners experienced very statistically significant to extremely statistically significant changes in their ability to select pharmacological treatments for migraine. However, in post-test, more than 56% of learners still failed to answer a question correctly regarding treatment selection in pregnant women, indicating the need for more education regarding appropriate selection of therapies for pregnant women.

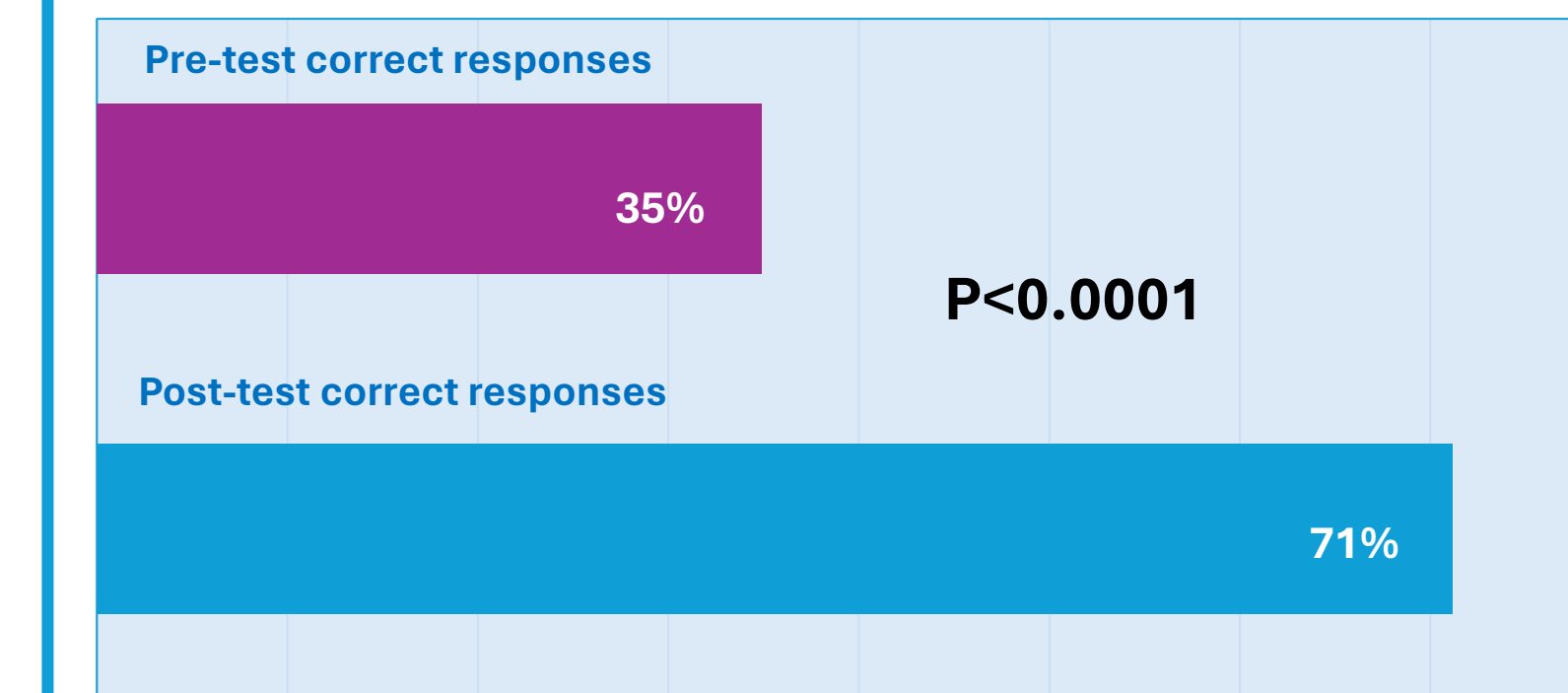
Which class of drugs should be avoided in pregnant patients?



- A) Selective serotonin receptor (5-HT1B/1D) agonists (triptans)
- B) Non-steroidal anti-inflammatory drugs (NSAIDs)
- C) Serotonin 5-HT1F agonists (ditans)**
- D) Ergot alkaloids
- E) Unsure

After education, nearly 30% of learners still could not identify the most suitable acute migraine therapy for a patient with hypertension. In addition, 45% of learners could not correctly identify the class of drugs that would be a first consideration for a patient experiencing both migraines and tension type headaches. However, extremely statistically significant changes in knowledge and competence were achieved.

Mr. Whittaker is a 52-year-old patient with a clinical history of hypertension. Which acute migraine therapy may be best suited for him considering his clinical profile?



- A) Ergot alkaloids
- B) Narcotics
- C) Calcitonin gene-related peptide (CGRP) receptor antagonists (gepants)**
- D) Selective serotonin receptor (5-HT1B/1D) agonists (triptans)
- E) Unsure

CONCLUSIONS

Knowledge and competence regarding the diagnosis and treatment of migraine has increased significantly and learners reportedly plan to incorporate new knowledge in clinical practice to improve patient outcomes. However, results show that further education is needed.

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Acknowledgements: Jessica Kiashara, MD, UT Southwestern Medical Center; Nebojsa Nick Knezevic, MD, PhD, Advocate Illinois Masonic Medical Center, University of Illinois at Chicago; Jenny Campano, PAINWeek, Informa Connect; Carli Rowe, PAINWeek, Informa Connect. **Funding for this continuing medical education activity was provided by Pfizer, Inc.**