

Health Disparities in Black Patients Living With Epilepsy: Findings From a Survey of US Neurologists

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Background

- The epilepsy experience differs between individuals and is influenced by many factors, including inequities based on socially defined race and ethnicity.^{1,3}
- A history of racism places certain groups at a disadvantage.⁴
- Previous studies have suggested a disparity in access to healthcare and health outcomes for Black patients living with neurologic disorders, including epilepsy, compared with their White counterparts.^{1,5}

Objective

- To better understand factors contributing to health disparities in Black patients living with epilepsy (PLWE) and the value of programs for healthcare professionals (HCPs) to reduce disparities.

Methods

STUDY DESIGN

- Online, cross-sectional market research survey was administered to neurologists (November 8, 2022, to November 18, 2022) using InCrowd's MicroSurvey platform.
- Screening questions assessed eligibility; criteria included having ≥20% of Black PLWE among all their PLWE, management of ≥10 PLWE in the last 30 days, and working in academic or community settings.
- Survey questions assessed understanding and recognition of health disparities in PLWE and the value of programs for HCPs.

ANALYSES

- T-tests with Bessel's correction (significant differences at a 95% confidence level) were carried out for the following subgroups: by setting (academic neurologists vs community neurologists) and by subspecialty (neurologists with an epilepsy subspecialty vs neurologists with a different subspecialty vs general neurologists with no subspecialty).

Results

NEUROLOGISTS AND PATIENTS

- Neurologists' subspecialties were epilepsy (n=50 [49.5%]), a different subspecialty (n=30 [29.7%]), and no subspecialty (general neurology) (n=21 [20.8%]).
- Different practice settings included academic/teaching hospitals (n=49 [48.5%]) and community settings: community-based multispecialty group private practice (n=19 [18.8%]), community-based single specialty group private practice (n=18 [17.8%]), community-based solo private practice (n=9 [8.9%]), and community non-teaching hospital (n=6 [5.9%]).

Demographic characteristics of neurologists and their patients

	ACADEMIC (n=49)	COMMUNITY (n=52)	ALL RESPONDENTS (N=101)
Race/ethnicity of neurologists, n (%)^a			
White	20 (40.8)	20 (38.5)	40 (39.6)
Asian	10 (20.4)	15 (28.8)	25 (24.8)
Hispanic	2 (4.1)	2 (3.8)	4 (4.0)
Black	1 (2.0)	1 (1.9)	2 (2.0)
Other	3 (6.1)	2 (3.8)	5 (5.0)
Prefer not to answer	13 (26.5)	12 (23.1)	25 (24.8)
Types of patients managed monthly, mean, n^b			
Epilepsy	96.4	63.9	79.7
Migraine	69.5	80.9	75.4
Neuropathy/pain	36.1	56.5	46.6
Race/ethnicity of patients with epilepsy seen by neurologists, mean, %^c			
White	43.8	49.4	46.7
Black	28.9	27.7	28.3
Hispanic	16.2	14.1	15.1
Asian	8.3	6.3	7.3
Other	2.7	2.4	2.6

^aSurvey question: Which of the following best describes your ethnicity? ^bScreening question: In a typical 30-day period, how many of the following patients do you personally manage/treat? ^cNote: This question is asking for the total number of patients (not patient visits) managed by you, personally, not those managed by your entire practice/network. ^dSS: To better understand the make-up of your patient population, what percentage of your epilepsy patient population are of the following ethnicities? Note: Your total must sum to 100%. Choices (random order): 1. ___ % White, 2. ___ % Black [SCREEN OUT IF <20%], 3. ___ % Asian, 4. ___ % Hispanic, 5. ___ % Other. HCP, healthcare professional.

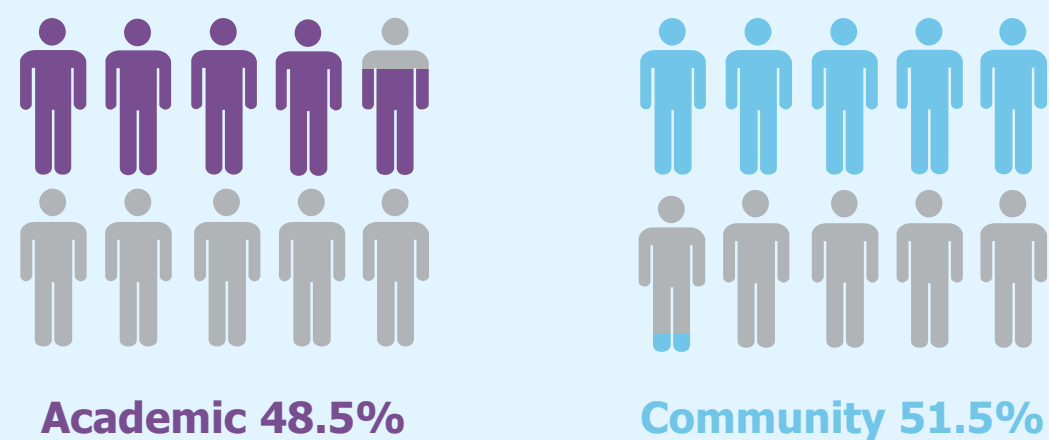
Overview

QUESTION

Are neurologists in the United States aware of the health disparities and patient or socioeconomic factors that have a negative impact on Black patients living with epilepsy (PLWE)?

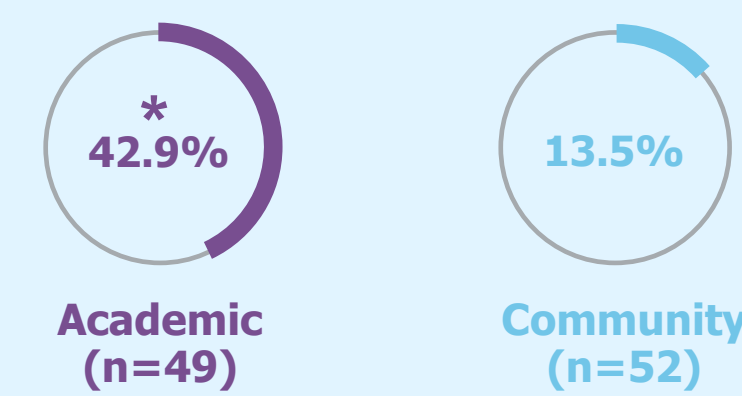
RESULTS

Practice settings of responding neurologists (N=101)



Awareness of health disparities

Neurologists who 'completely agreed' with the statement that racism is a social determinant of health

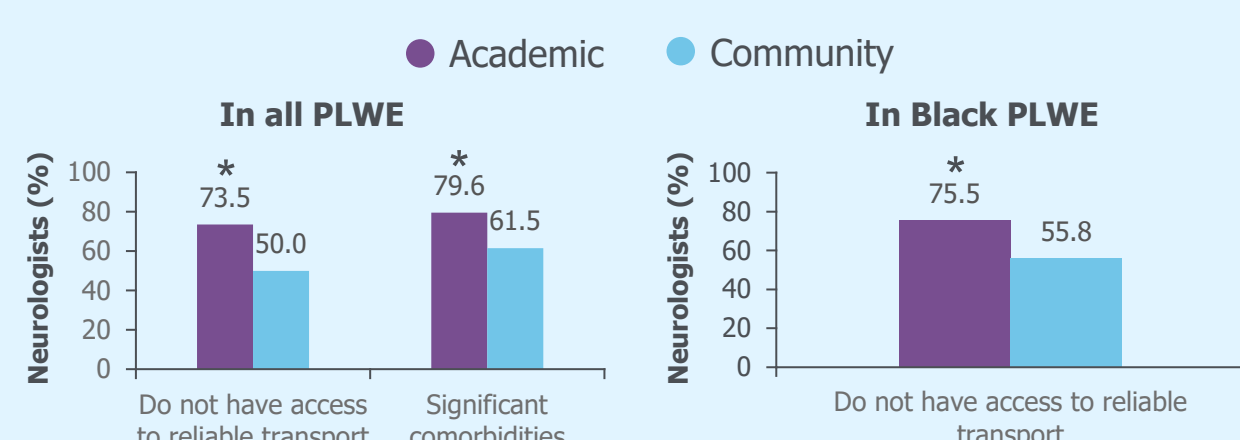


*Statistically significant difference (p<0.05) in the percentage of neurologists in academic vs community settings who agree with the statement.

INVESTIGATION

A cross-sectional study administered an online 10-question survey to neurologists in the United States to gain insight on their awareness of health disparities that may disproportionately affect Black PLWE.

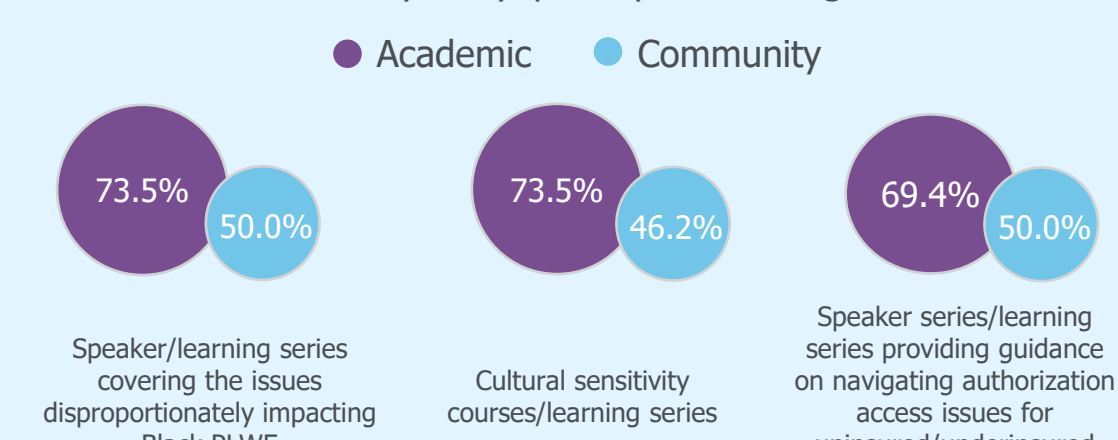
Significant differences in response regarding situations having major/severe negative impact on health outcomes



*Statistically significant difference (p<0.05) in the percentage of neurologists in academic vs community settings reporting situations that have a 'major' or 'highly significant/severe' negative impact on health outcomes. PLWE, patients living with epilepsy.

HCP-focused programs

Most commonly cited by neurologists as having a 'somewhat likely' or 'very likely' participation rating



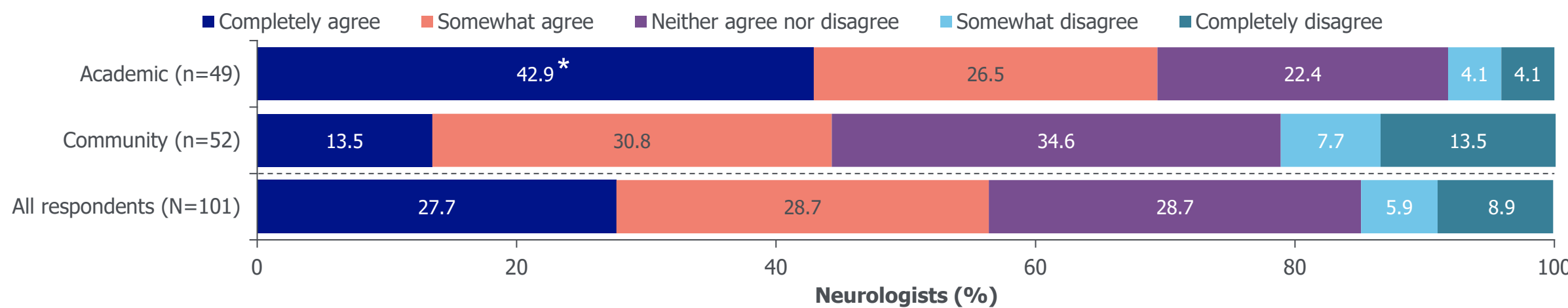
HCP, healthcare provider; PLWE, patients living with epilepsy.

CONCLUSIONS

Neurologists saw little difference in situations that had a negative impact on patient health outcomes between all PLWE and Black PLWE, except more physicians reported mistrust in the healthcare system for the latter group. More academic than community neurologists agreed racism is a social determinant of health and were willing to participate in programs for healthcare providers to improve treatment outcomes in Black PLWE.

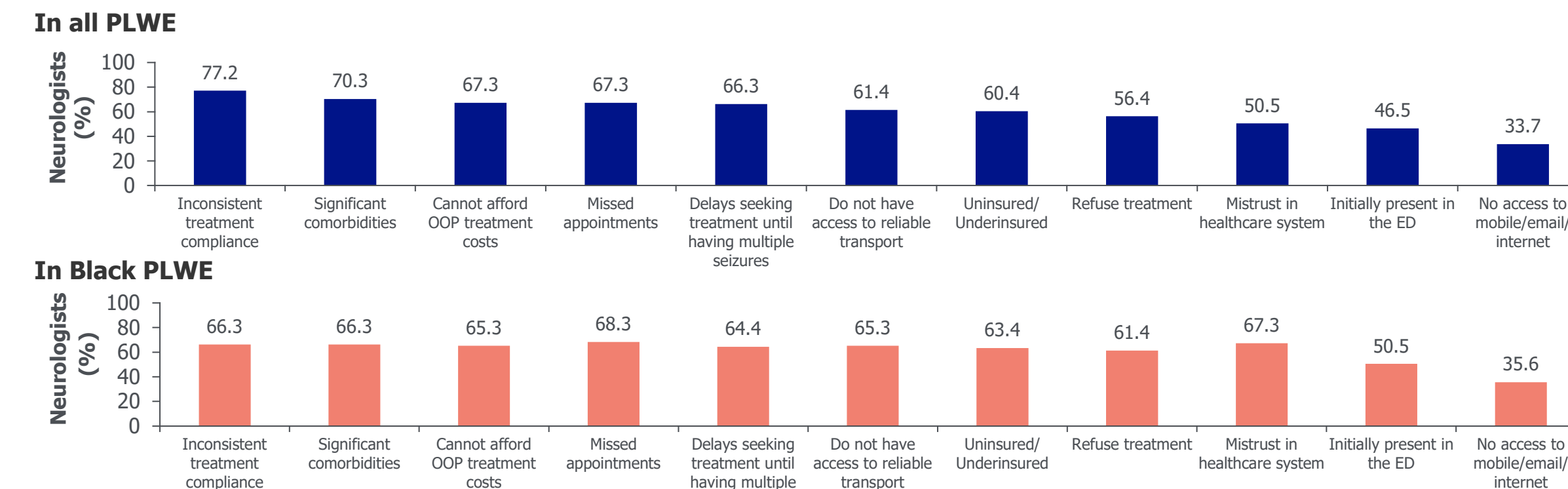
AWARENESS OF HEALTH DISPARITIES

Statement agreement: 'Racism as a social determinant of health'^a



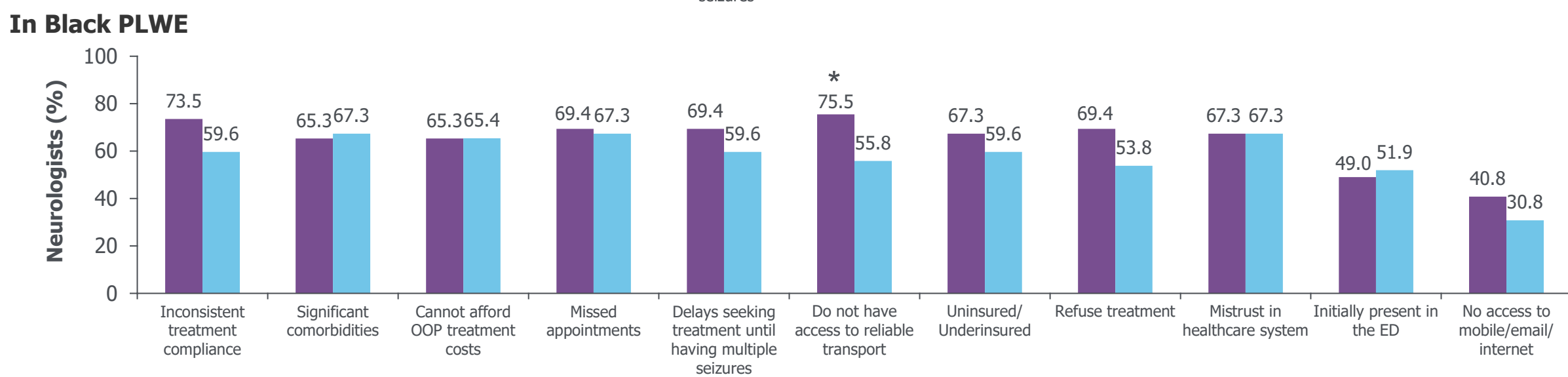
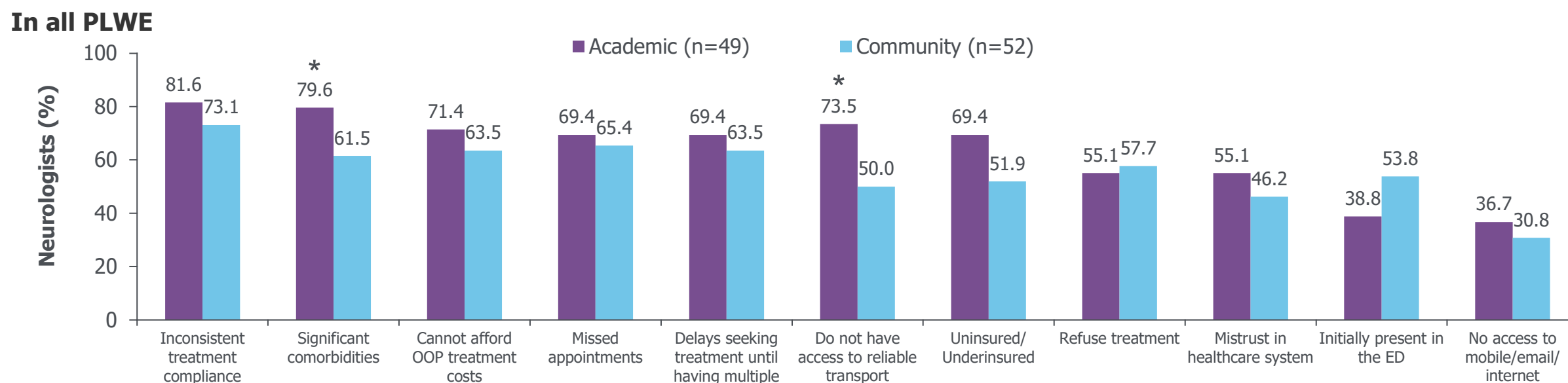
^aSurvey question: Please rate your agreement with the statement below: 'Racism is a social determinant of health.' Questions were answered on a 5-point scale, where: 1 = Completely agree, 2 = Somewhat agree, 3 = Neither agree nor disagree, 4 = Somewhat disagree, 5 = Completely disagree.

Situations considered by neurologists to have a 'major' or 'highly significant/severe' negative impact on patient health outcomes^a



^aSurvey questions included: 1) In all PLWE: Patient attribute impact on epilepsy patient health outcomes. To what extent, if any, do the following situations have [an impact] on health outcomes for your epilepsy patients? and 2) In Black PLWE: Impact of Patient Attributes – Black Patients. Please think about the Black epilepsy patients that you are currently managing. To what extent, if any, do the following situations have [an impact] on health outcomes for your epilepsy patients? Questions were answered on a 5-point scale, where: 1 = Insignificant/no impact, 2 = Minor negative impact, 3 = Moderate negative impact, 4 = Major negative impact, 5 = Highly significant/severe negative impact. ED, emergency department; OOP, out-of-pocket; PLWE, patients living with epilepsy.

Situations considered by neurologists to have a 'major' or 'highly significant/severe' negative impact on patient health outcomes, by practice setting^a



^aSurvey questions included: 1) In all PLWE: Patient attribute impact on epilepsy patient health outcomes. To what extent, if any, do the following situations have [an impact] on health outcomes for your epilepsy patients? and 2) In Black PLWE: Impact of Patient Attributes – Black Patients. Please think about the Black epilepsy patients that you are currently managing. To what extent, if any, do the following situations have [an impact] on health outcomes for your epilepsy patients? Questions were answered on a 5-point scale, where: 1 = Insignificant/no impact, 2 = Minor negative impact, 3 = Moderate negative impact, 4 = Major negative impact, 5 = Highly significant/severe negative impact.

- Neurologists with an epilepsy subspecialty (n=50) and those with a different subspecialty (n=30) were more likely than general neurologists (n=21) to report 'do not have access to reliable transport' as a situation that has a major/severe impact (78.0% and 66.7% vs 33.3%; p<0.05).
- Neurologists with an epilepsy subspecialty were more likely than neurologists with a different subspecialty to report 'treatment refusal' as a situation having a major/severe impact (74.0% vs 46.7%; p<0.05).

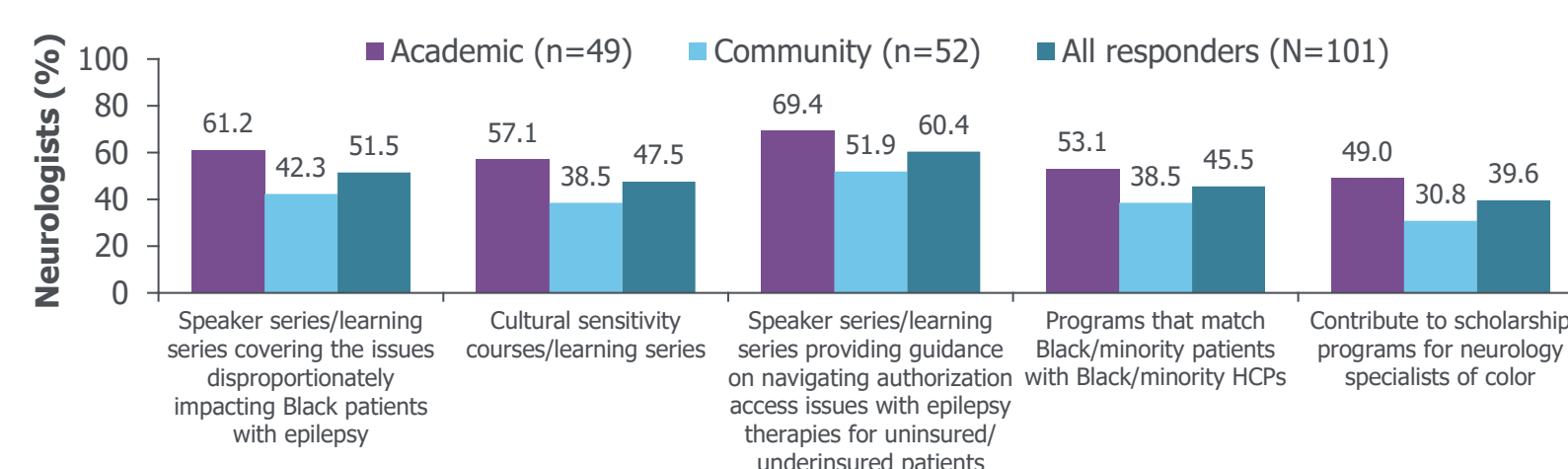
PERCEPTIONS REGARDING HCP-FOCUSED PROGRAMS

HCP-focused programs considered by neurologists to be 'somewhat' or 'very important' for improving health outcomes for Black PLWE^a

NEUROLOGISTS, n (%)	ACADEMIC (n=49)	COMMUNITY (n=52)	ALL RESPONDENTS (N=101)
Speaker series/learning series covering the issues disproportionately impacting Black PLWE	36 (73.5)*	26 (50.0)	62 (61.4)
Cultural sensitivity courses/learning series	36 (73.5)*	24 (46.2)	60 (59.4)
Speaker series/learning series providing guidance on navigating authorization access issues with epilepsy therapies for uninsured/underinsured patients	34 (69.4)*	26 (50.0)	60 (59.4)
Programs that match Black/minority patients with Black/minority HCPs	30 (61.2)	25 (48.1)	55 (54.5)
Contribute to scholarship programs for neurology specialists of color	24 (49.0)	22 (42.3)	46 (45.5)

^aSurvey question: How important are the following ideas for HCP-focused programs for continuing to improve treatment outcomes for Black patients living with epilepsy? Questions were answered on a 5-point scale, where: 1 = Very unimportant, 2 = Somewhat unimportant, 3 = Neither important nor unimportant, 4 = Somewhat important, 5 = Very important. *Statistically significant difference (p<0.05) in the percentage of neurologists in academic vs community settings rating the importance of HCP-focused programs. HCP, healthcare provider; PLWE, patients living with epilepsy.

Likelihood of participating in HCP-focused programs^a



^aSurvey question: How likely would you be to participate in any of the following? Questions were answered on a 5-point scale, where: 1 = Very unlikely, 2 = Somewhat unlikely, 3 = Neither likely nor unlikely, 4 = Somewhat likely, 5 = Very likely. HCP, healthcare provider.

Limitations

- Used database platform that included only neurologists with at least 20% of their epilepsy patient population consisting of Black patients, which may not be representative of the entire neurologist population treating Black PLWE.
- Answers to survey questions were self-reported and not verified through medical chart review.
- Risk of response bias.

Conclusions

- Neurologists perceived little differences in situations that have a negative impact on health outcomes between all PLWE and Black PLWE, except more physicians reported mistrust in the healthcare system for the latter group.
- More often, academic vs community neurologists report socioeconomic situations as having a negative impact on patient health outcomes.
- Increasing neurologist awareness of situations that have negative health outcomes in Black PLWE may help to address racial health disparities in this patient population.
- Speaker- and learning series focused on issues related to Black PLWE and navigating authorization access for epilepsy therapies were most often identified as HCP-focused programs that could improve health outcomes for Black PLWE.

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