CDR Domain Scoring Variation by Race in the NACC Dataset

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Disclosures

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• Recent studies have found differences in the association between neuropsychological performance and ratings of daily function in non-Hispanic White and non- Hispanic Black older adults\(^1\).

• Evaluating differences in CDR domain ratings by race may be important to understanding disparities in clinical research outcomes for people with Alzheimer’s disease and related disorders.

\(^1\)Graves et al., 2022
Methods

• Data source
  • NACC cohort
  • Baseline visits (Version 3.0 UDS)
  • 37 ADRCs
  • March 2015 to June 2022

• Study sample
  • non-Hispanic Black individuals (NHB) (N=1,609, 16.77%)
  • non-Hispanic White individuals (NHW) (N=7,984, 83.23%)

• Demographic characteristics
  • Gender and race distribution
  • Mean age at baseline
  • Average years of education

• Measures
  • CDR: Global, Sum of Boxes and domains
  • Geriatric Depression Scale (GDS)

• Analytical Approach
  • Categorical Variables:
    • Chi-square
  • Continuous variables:
    • T-test
    • MANCOVA tests
  • P < .05
Results

• There were statistically significant differences between race groups for:
  • Gender Proportion
  • Education
  • CDR Global-Sum of Boxes and Domains
  • GDS
Race Distribution by Consensus Diagnostic Groups

Consensus Diagnosis

- **CN**: 80.65% NHW, 19.35% NHB
- **Impaired-not-MCI**: 70.91% NHW, 29.09% NHB
- **MCI**: 82.17% NHW, 17.83% NHB
- **Dementia**: 92.13% NHW, 8.87% NHB
GLOBAL CDR

Cognitive Normal

<table>
<thead>
<tr>
<th>Race</th>
<th>Global CDR Scores</th>
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<tbody>
<tr>
<td>NHB</td>
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<tr>
<td>NHW</td>
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Impaired-not-MCI

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MCI

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Dementia

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</table>
CDR SUM OF BOXES

**Cognitive Normal**
- NHB: 0.17
- NHW: 0.16

**Impaired-not-MCI**
- NHB: 0.46
- NHW: 0.67

**MCI**
- NHB: 0.95
- NHW: 1.45

**Dementia**
- NHB: 5.83
- NHW: 4.75
Conclusion

- There were significant differences in the rating of CDR domains by race in the NACC dataset in each diagnostic group.
- Further research is needed to understand underlying factors such as participants’ knowledge, beliefs, and practices regarding ADRD and implicit/explicit interviewer bias, among others, which may play a role in differences in performance by race on CDR domains ratings contributing to racial differences in diagnostic groups.
References

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Thank you!