The Representation of Reported Race/Ethnicity Data in Cancer-Related Cognitive Impairment Research Amongst Cancer Patients

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Background:

Cancer-related cognitive impairment (CRCI) refers to any form of negative cognitive change that can occur during or after cancer treatment. As this field expands, it is of the utmost importance that new research is representative of cancer survivors of all races and ethnicities. To our knowledge, there have been no published CRCI reviews describing the sociodemographic profile of CRCI research in terms of race and ethnicity, representing a gap in knowledge.

Objective:

This study aimed to review the representation of reported race/ethnicity data in CRCI research in cancer patients.

Methods:

Search terms:
- "cancer"
- "cognition"
- "systematic review OR meta-analysis"

Databases:
- PubMed
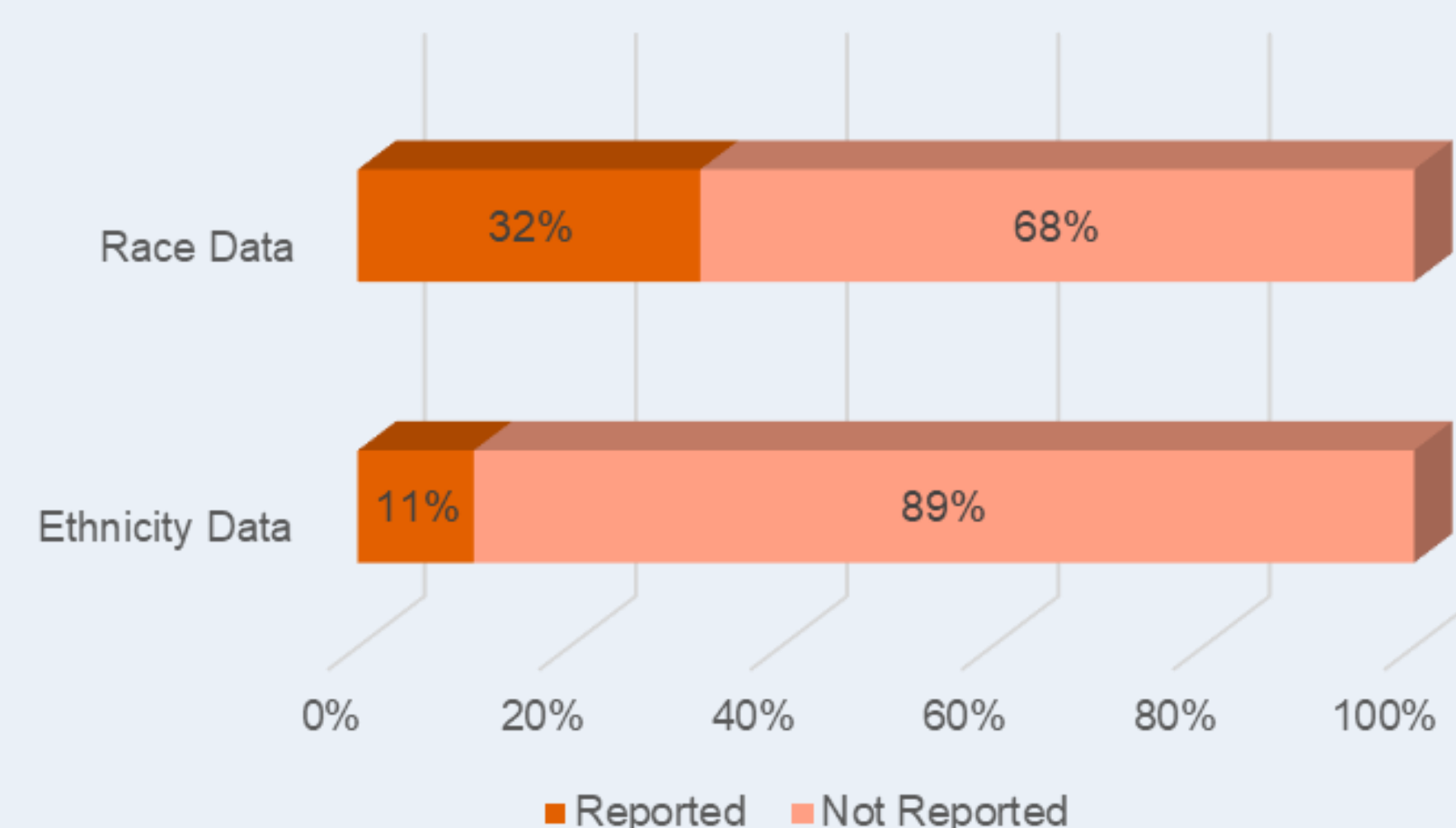- National Library of Medicine

Inclusion Criteria:
- From inception to November 2022
- Systematic Reviews – for a broad representation of CRCI studies
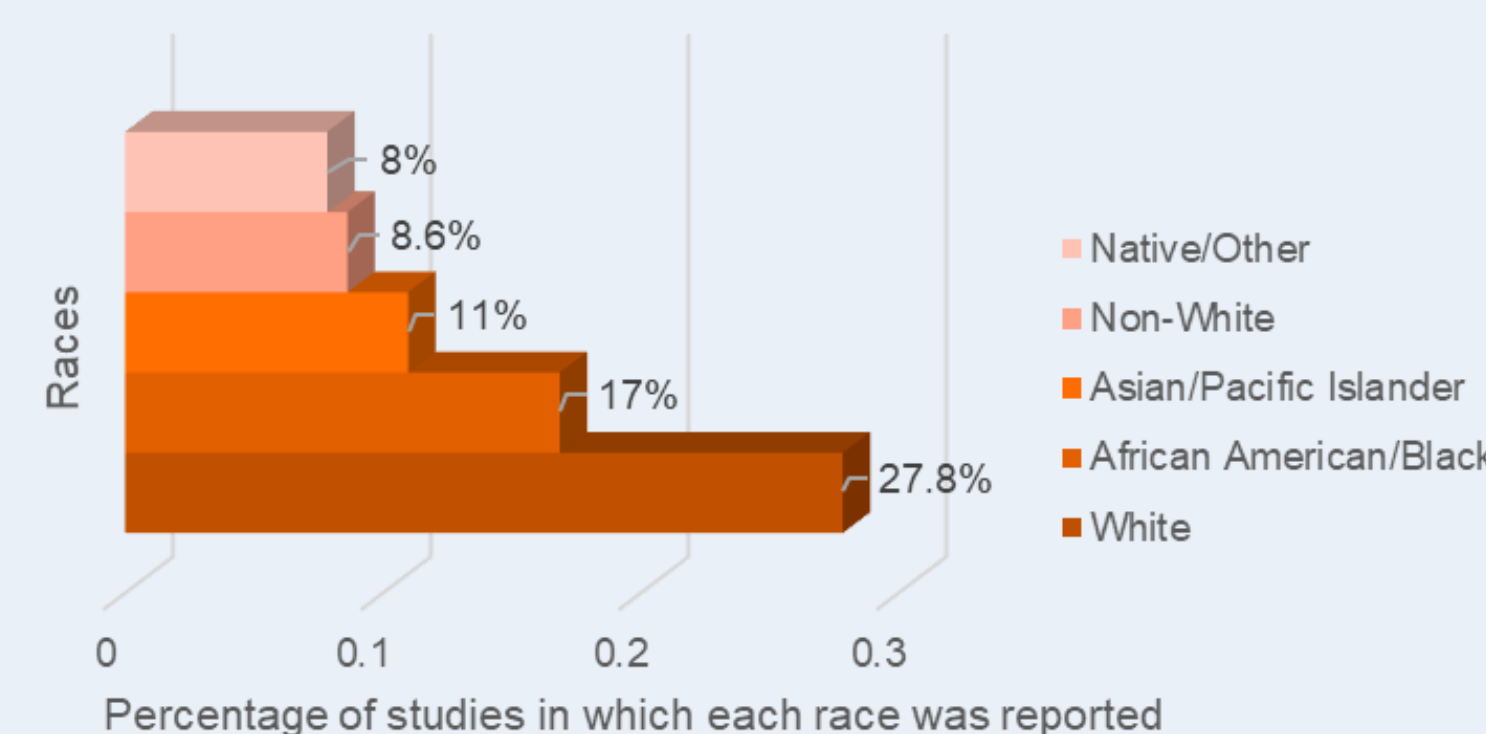
Final Sample:
- 12 systematic reviews (containing 345 published articles)
- Repeated articles and articles without full-text availability were excluded
- 255 articles were reviewed, and racial/ethnic characteristics extracted from each article
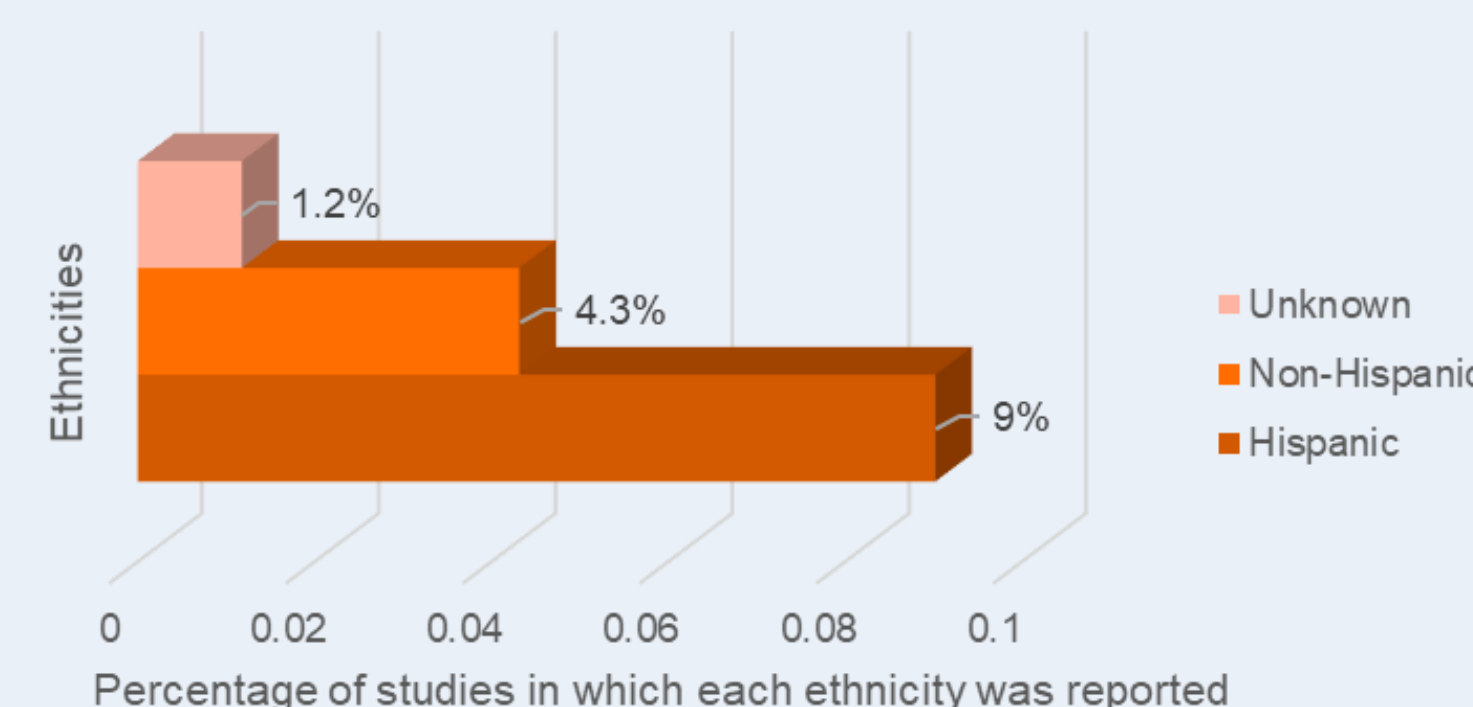- Descriptive statistics were used to summarize the extracted data.

Results:

Race/Ethnicity Reporting Across All Studies

Race Data: 32% / 68%
Ethnicity Data: 11% / 89%

Reported / Not Reported

Races Represented Across All Studies

- Native/Other: 8%
- Non-White: 8.6%
- Asian/Pacific Islander: 11%
- African American/Black: 17%
- White: 27.8%

Percentage of studies in which each race was reported

Ethnicities Represented Across All Studies

- Unknown: 1.2%
- Non-Hispanic: 4.3%
- Hispanic: 9%

Percentage of studies in which each ethnicity was reported

Findings:

Studies ranged from the years 1996-2021 and sample sizes ranged from 8-72,374.
Out of the total 255 articles:
- Only **31.8%** (n=81) reported participant racial characteristics
- Only **11%** (n=28) reported ethnicity characteristics.
Amongst the studies that reported race:
- **34.6%** (n=28) of them only reported White/Non-White data with no additional details provided
- **21.0%** (n=17) reported 2 races (White/Black or White/Asian),
- **23.5%** (n=19) reported 3 races (W/B/A or W/B/Other)
- **17.3%** (n=14) reported 4 or more races (W/B/A/O).
Race characteristics across all 255 studies:
- African American/Black participants were represented in only **16.9%** of the sample
- Asian/Pacific Islander participants in **11.0%**
- Native/Indigenous (or 'Other') in **7.8%**.
Ethnicity characteristics across all studies:
- Hispanic participants were represented in only **9.0%** of the sample.

Conclusions:

These findings highlight a large gap regarding the racial/ethnic demographic reporting and representation in CRCI research. Though it is considered best practice for studies to include sociodemographic data, the majority of studies in our sample did not include race/ethnicity and minority populations were grossly underrepresented. Future CRCI studies must be representative of the diverse population of cancer survivors impacted by CRCI in order to provide a complete understanding of the problem and identify health disparities related to CRCI.