

AnC Mini Session: “Recalibrating” the use of race in health research: Why, when, and how?

VIEWPOINT

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Recalibrating the Use of Race in Medical Research

Race was originally introduced in US medical curricula in 1790 by Benjamin Rush, who asserted that blackness was a particular kind of leprosy. In 1857 Josh Nott characterized slaves as a biologically appropriate phenotype for hard labor under trying conditions. In the 1870s, the Jim Crow era of race exclusion from most societal venues reinforced medical segregation. This sordid history, although painful to recite, is the underpinnings of race in medicine, including its use in medical research.

Race as a variable in medical research has long been a contentious issue.¹ It is widely accepted that race is an indistinct construct that is not always measured accurately and standardized. In 1999, the Human Genome Project emphasized race as nonbiological with no basis in the genetic code. What, then, does race define?

Race is a poor surrogate of social constructs and even more so, if not abjectly, of biology. Differences observed in research studies between “races” may result from the

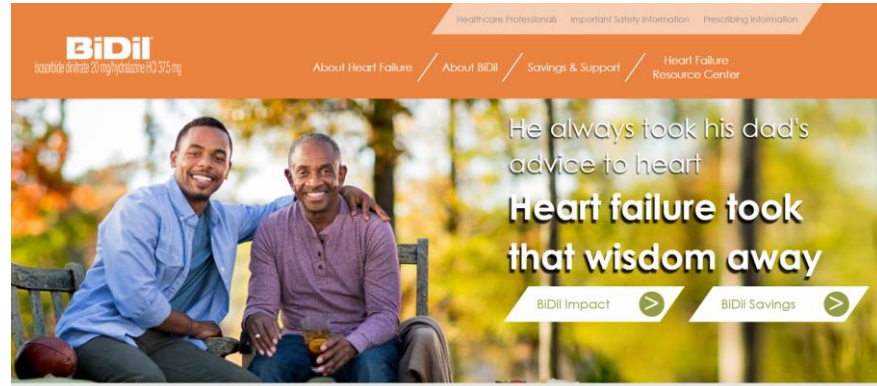
persist in medical research. But the imperfectness of race as a tool is problematic.

One school of thought asserts that because race (and ethnicity) is so weakly measured and even more poorly analyzed and reported, efforts should focus on trying to strengthen measurement, analysis, and reporting. A series of initiatives, including self-identification, especially in clinical trials and registries and in specifications of requirements for publicly funded research, ensured that more attention would be given toward obtaining more data on racial minority populations. However, empirical evaluations show that race information can be fragmented, inconsistent, and eventually not very usable.

The medical literature that uses or discusses race is vast, but is it really informative? On December 21, 2020, a search of PubMed with “race OR ethnicity” yielded 518 842 items, whereas one with focused

Key points of the article

- Race is a historical, poorly-specified measure that nevertheless has a great deal of explanatory power when it comes to health
- Race is used both implicitly and explicitly in medical research
 - Implicitly: social determinants of health
 - Explicitly: assessing lung and kidney functioning, screening for diabetes, etc.



Healthcare Professionals | Important Safety Information | Prescribing Information

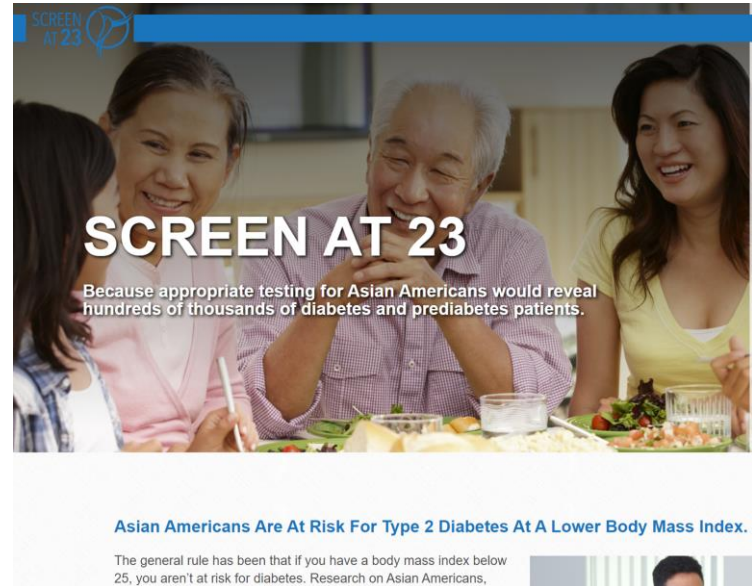
BiDil
losartan dihydrate 20 mg/hydrochlorothiazide 12.5 mg

About Heart Failure | About BiDil | Savings & Support | Heart Failure Resource Center

He always took his dad's advice to heart
Heart failure took that wisdom away

BiDil Impact > | BiDil Savings >

The advertisement features a photograph of two men, a younger man in a light blue shirt and an older man in a purple shirt, sitting on a bench outdoors. The older man has his arm around the younger man's shoulder. The background is a soft-focus outdoor setting with trees.



SCREEN AT 23

Because appropriate testing for Asian Americans would reveal hundreds of thousands of diabetes and prediabetes patients.

Asian Americans Are At Risk For Type 2 Diabetes At A Lower Body Mass Index.

The general rule has been that if you have a body mass index below 25, you aren't at risk for diabetes. Research on Asian Americans,

The advertisement features a photograph of three people, two women and one man, sitting at a table and eating a meal. They are all smiling and looking towards the camera. The table is set with various dishes, including what appears to be a bowl of rice and some vegetables. The background is a simple indoor setting.

Some rhetorical (and legitimate) questions asked by the editorial

What does “race” define?”

Is any progress addressing [health] inequities possible if race as a measure is banned?

How much would be lost if [race as a variable] were eliminated?

Is there a better tool in research and policy efforts?

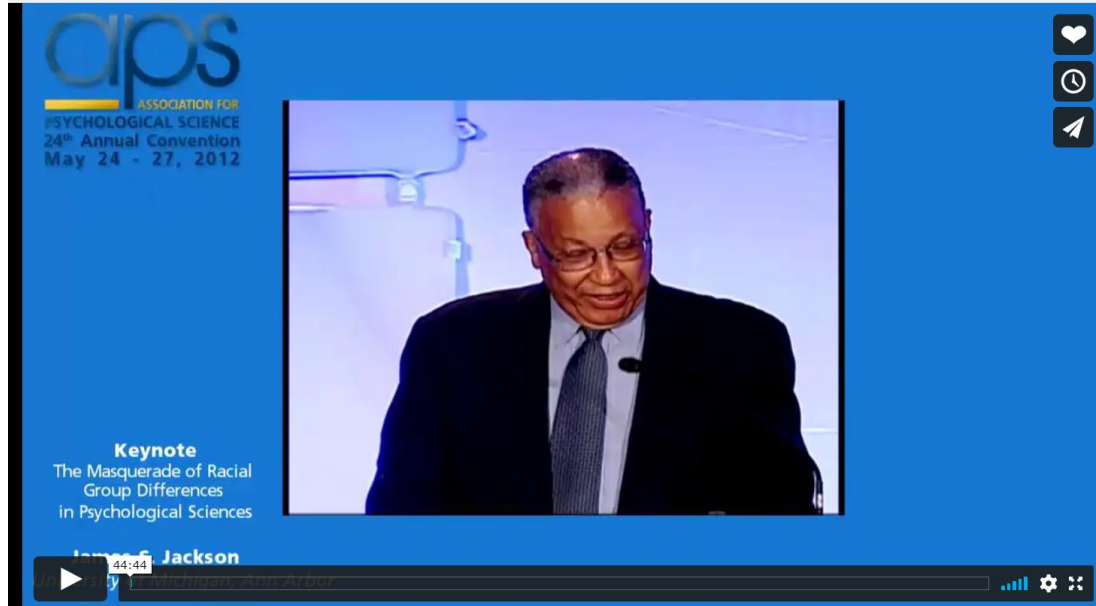
Are there some situations in which race variables remain valuable?

What strategy would generate research that diminishes rather than increases inequalities and injustice?

Some paths forward?

1. Execute a systematic review of prior research because race may have been exhausted as a tool and is futile to study again, or may offer insight for how a new study may best leverage past work, or create novel hypotheses;
2. **If race measurements are deemed appropriate, carefully consider collateral, explanatory biological and sociologic variables appropriate to include in the same investigation, and how standardization, accuracy, and relevance may be enhanced in explaining race-based signals;**
3. In any comparative analyses, investigators should consider whether White race should be the reference standard because normative values are reasonable, but normal designations that characterize some humans as aberrant are problematic;
4. Carefully consider the potency of any race-related research and gauge a holistic portfolio of clinical and social consequences, including the amelioration or aggravation of existing inequalities.

“The Masquerade of Racial Group Differences in Psychological Sciences”



“Race is not a variable.”

- James Jackson

<https://vimeo.com/45247299>

If race is not a variable, what is it?

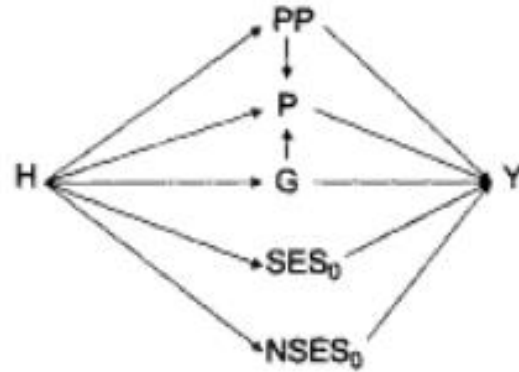


FIGURE 1. Diagram illustrating relations between physical phenotype (P), parental physical phenotype (PP), genetic background (G), family/parental socioeconomic status (SES_0), neighborhood socioeconomic status ($NSES_0$), history (H), and the outcome of interest Y .

From: VanderWeele TJ, Robinson WR. On the causal interpretation of race in regressions adjusting for confounding and mediating variables. *Epidemiology*. 2014;25:473–484

A comment on within-group vs. between-group analyses

“Caucasians have traditionally been considered as the “control group” by which an understanding of minorities is gained from observing differences. There are some inherent difficulties with this perspective.

- First, there is a long history of research that does not include ethnic groups other than Caucasians. The validity of that research is seldom questioned in relation to the generalizability to the population but the validity of the reverse, research focused on a minority groups, is often examined.
- Second, Caucasians are sometimes thought to be needed in an analysis of ethnic minorities to assess differences. There is an assumption of differences, but different from what? The assumption seems to be that Caucasians represent some sort of standard from which ethnic minorities deviate.
- Finally, group-difference studies sometimes assume that the same underlying processes produce the outcome of interest. However, the process might be different and therefore leads to a difference in outcomes.”



Mental health disparities research: The impact of within and between group analyses on tests of social stress hypotheses

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ABSTRACT

Social stress models are the predominant theoretical frame for studies of the relationship between social statuses and mental health (Dressler, Oths, & Gavlee, 2005; Horwitz, 1999). These models propose that prejudice, discrimination and related social ills exert an added burden on socially disadvantaged populations (populations subjected to stigma, prejudice and discrimination) that can generate mental health problems. Researchers have used a variety of methodological approaches to study this hypothesis. In this paper we argue that researchers have not paid sufficient attention to the implications of this methodological variability, particularly the distinction between studies of within-group and studies of between-groups variation, in interpreting empirical tests of social stress theory. To fully evaluate the evidence, we need to carefully consider the convergence and divergence of results across diverse methodologies.

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Within-group (Path C) and between group (Path A) analyses are asking (and therefore answering) different questions

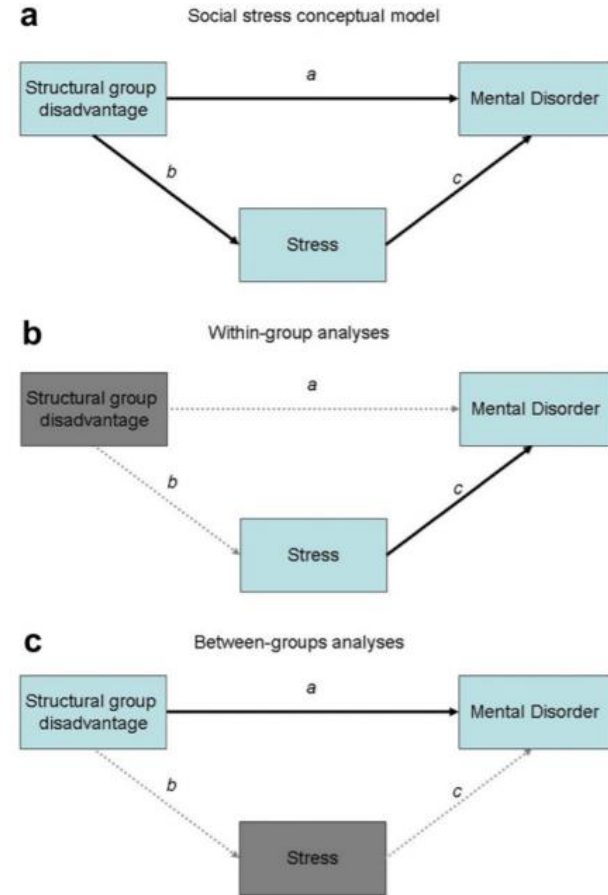


Fig. 1. (a) Social stress conceptual model; (b) With-in group analyses; (c) Between-groups analyses.

Discussion

How does the construct of race inform or intersect with your research program?

Resources for learning, data, and connecting with researchers

[Program for Research on Black Americans \(PRBA\)](#)

[Resource Centers for Minority Aging](#)

- Michigan Center for Urban African American Aging Research ([MCUAAAR](#))
- Michigan Center for Contextual Factors in Alzheimer's Disease ([MCCFAD](#))

National Institute on Minority Health and Health Disparities (NIMHD) [Summer Training Institute](#) (Applications due March 8)

[Hispanic Community Health Study](#)

[Jackson Heart Study](#)

[Annotated Bibliography on within-group vs. between-group differences](#)

RCMD
REALLY COOL
MINORITY DATA

DATA TOOLS LEARNING HELP ABOUT THE PROJECT LOG IN/CREATE ACCOUNT

Search for Data

NEWS

New Data! Generations: A Study of the Life and Health of LGB People in a Changing Society, United States, 2016-2019

ICPSR highlights data on slavery, Black History, as nation observes Juneteenth 2020

ICPSR and RCMD celebrate Pride Month with data!

FEATURED DATA

2015 U.S. Transgender Survey (USTS)

IN THE PAST YEAR, DID ANYONE TELL OR ASK YOU IF YOU WERE USING THE WRONG BATHROOM?

Response	Percentage
YES	41.8%
NO	58.2%

Visual Non-Conformers: 84.3%

Visual Conformers: 13.7%

Somewhat Visually Conforming: 23.8%

Total: 74.8%

The two variables used in this infographic are: VISUALCONFORMITY

Q: People can tell I am trans even if I don't tell them.

- 1 Visual non-conformers
- 2 Somewhat visual conforming
- 3 Visual conformers

and

Q20_1

Q: In the past year, did anyone tell or ask you if you were using the wrong bathroom?

- Only 13.7% of respondents who visually conform to the expectation of their gender identity were told or asked whether they were using the wrong bathroom.
- For respondents who were somewhat visually conforming, that number increased to 34.7%.
- For visual non-conformers, the number increased to 41.5%.

From the data we see that appearance has an

RESEARCHER INTERVIEWS

Principal Investigators of RCMD studies discuss their research experiences, origins of their interest in conducting research, and advice for other researchers.

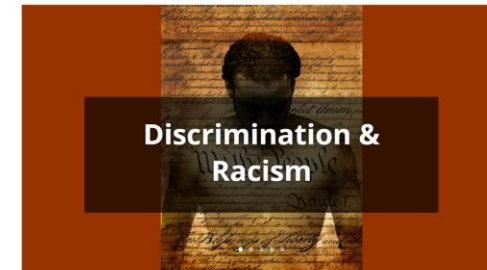
- Ruben Rumbaut
- Deborah Schildkraut, 21st Century Americanism
- John Garcia, Latino National Success
- Ruth Padman and Lakresh Koiri, National Neighborhood Crime Study

Program for Research on Black Americans

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Since its establishment in 1976, the Program for Research on Black Americans (PRBA) has been the leader in creating new and innovative qualitative and quantitative research methods to understand the lives of African American and African descendant communities. Our mission is to generate high-quality data, analyses, and interpretations of findings to advance academic scholarship and develop effective public policies.



Latest News

PRBA Works with BCALA on Grant
Dec 21, 2020

The Black Caucus of the American Library Association (BCALA) was awarded an Institute of Museum and Library Services (IMLS) planning grant to explore the current state of Black History Month (BHM) programming offered at public libraries. While virtually all of the 9,000 public libraries across the U.S. conduct some programming during BHM, there has never been a systematic study to