Racism, Risk, & Resilience:
Evidence and implications for
dementia research and care

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Disclosure Statement

I have no relevant financial relationships to disclose that exist now or in the past 12 months.
Overview

- Risk in a Vacuum
  - Finding on lifetime stressors and racial disparities in cognition

- Defining Racism
  - Interpersonal Racism
  - Systemic Racism

- Racism and Cognitive Aging
  - Direct Relationships
  - Indirect Mechanisms

- Racism and Resilience
  - Exploring reserve and resilience in a context of racism
  - Anti-racism and intervention work

- Examples from UW Teams
  - WAI Milwaukee
  - Pisando Fuerte
  - Oneida Helping Oneida

Racial and Ethnic Disparities in ADRD

![Graph showing racial and ethnic disparities in ADRD](image)

Mayeda et al., Alzheimer’s and Dementia, 2016
How do stressful events across the life course contribute to racial disparities in cognitive health in midlife and older age?

Figure 1. Distribution of exposure to lifetime stressors, by race

African Americans report experiencing more stressful life events (mean=5.1 events) than non-Hispanic whites (mean=2.8 events)

Zuelldoff et al, J Alzheimer Dis, 2020
Differential Vulnerability?

Table 2. Regression coefficients (95% confidence intervals) for lifetime stressors and change in cognitive function by domain, race, and covariate model

<table>
<thead>
<tr>
<th>Speed &amp; Flexibility</th>
<th>White (N=1191)</th>
<th>African American (N=50)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Model 2</td>
<td>Model 3</td>
</tr>
<tr>
<td>Age</td>
<td>-0.06 (-0.07, -0.05)</td>
<td>-0.09 (-0.14, -0.04)</td>
</tr>
<tr>
<td>Stress</td>
<td>-0.03 (-0.05, -0.01)</td>
<td>-0.13 (-0.24, -0.03)</td>
</tr>
<tr>
<td>Stress*Age</td>
<td>0.000 (-0.002, 0.002)</td>
<td>0.001 (-0.009, 0.011)</td>
</tr>
<tr>
<td>Literacy</td>
<td>0.03 (0.02, 0.05)</td>
<td>0.07 (0.03, 0.11)</td>
</tr>
<tr>
<td>BMI</td>
<td>-.001 (-0.007, 0.005)</td>
<td>0.01 (-0.02, 0.04)</td>
</tr>
<tr>
<td>Past smoking</td>
<td>-0.03 (-0.12, 0.07)</td>
<td>0.10 (-0.49, 0.69)</td>
</tr>
<tr>
<td>Current smoking</td>
<td>-0.13 (-0.26, 0.01)</td>
<td>-0.14 (-0.77, 0.50)</td>
</tr>
</tbody>
</table>

Additionally adjust for centered age, gender, centered yrs of education, APOE ε4 status, and practice effects

- Significant at the p<0.05 level
- Significant at the p<0.001 level

Stressful life events associate with poorer processing speed and flexibility regardless of race, but detriment appears stronger in African American participants.

In African Americans only, stressful life events predict accelerated decline in episodic memory.

Zuelsdorf et al, J Alzheimer Dis, 2020

Race as a risk factor?
Race as a Risk Marker

Race is not a biological construct that reflects innate differences

Race is a social construct that captures the effects of historical and contemporary racism

- Risk and Protective Exposures
  - Racism creates differences in social, political, economic, and environmental exposures that result in differences in disease incidence

- Care Access
  - Racism results in differences in access to physical and mental health care including preventive and curative services

- Care Quality
  - Racism results in differences in the quality of care received within the care delivery systems

American Public Health Association, 2020

Racism as a Risk Factor - Definitions

Racism can be understood as operating on at least two broad levels:

Interpersonal Racism:
- Also referred to as individual or person-mediated racism
- Prejudiced assumptions, beliefs, and behaviors → discriminatory actions stemming from conscious and/or unconscious personal prejudices
- Supported and reinforced by systemic racism

Systemic Racism:
- Encompasses structural and institutionalized racism
- Perpetuated by policies and practices entrenched in social and governing institutions – resulting in differential access to social goods, services, and opportunities
- No individual intent is required for perpetuation of systemic inequality: often evidenced as inaction in the face of need

Systemic Racism: Historical Perspective

Racism and Cognition: Direct Effects

Perceived discrimination is associated with poorer performance on tests of processing speed and episodic memory in African American older adults (Barnes et al, 2012; MARS; Zahodne et al 2019; HRS)

Birth in a Southern state is associated with poorer memory test performance among Black older adults, and worst performance is seen among those who attended a legally desegregated school (Lamar et al, 2020; MARS)

Experiences of daily and institutional racism are associated with greater odds of subjective cognitive decline in older Black women (Coogan et al, 2020; BWHS)
Racism and Cognition: Indirect Effects

Racism as a social determinant of (in)equality:

- **Race**
- **Health**
- **Peri Partum**
- **Birthweight**
- **Postnatal Care**
- **Breastfeeding**
- **Childcare**
- **Education**
- **Quality**
- **Age at Entrance**
- **Test Bias**
- **Services**
- **Suspension/Expulsion**
- **Health Care**
- **Insurance**
- **Immunizations**
- **Proximity**
- **Medical Home**
- **Cultural Resp**
- **Acute Care**
- **Healthcare**
- **Insurance**
- **Immunizations**
- **Proximity**
- **Medical Home**
- **Cultural Resp**
- **Acute Care**
- **Adversity**
- **Housing Insecurity**
- **Trauma**
- **Financial Hardship**
- **Discrimination**
- **Psycho Social**
- **Locus of Control**
- **Perceived Stress**
- **Social Isolation**
- **Depression**
- **Physical Environ**
- **Air Particulates**
- **Lead**
- **Transportation**
- **Green Space**
- **Fresh Food**

"Health Behaviors"

Inequitable distributions of resources, opportunities, risk exposures

**Racism and “Modifiable” ADRD Risk**

**Education:**
Black, Hispanic, and Native K-12 students, compared to White:
- Graduation rates are 10-20% lower
- Suspension rates are 2-7 times higher
- Majority-minority schools receive ~19% less funding per student than majority-white

**Hearing loss:**
Black older adults more likely to report recent hearing test, but are less than half as likely to secure a hearing aid:
- Mexican Americans 78% less likely to have secured a hearing aid

**Traumatic brain injury:**
Highest rates of TBI hospitalization, and poorest post-TBI functional trajectories among Native and Black pops:
- Same groups less likely to access in-hospital and post-hospital TBI care (insurance coverage strong determinant of access)

**Smoking:**
- Prevalence highest among Native and Black men
- Members of racial/ethnic minorities least likely to receive smoking cessation guidance or aids during medical appointments

**Depression:**
Lifetime risk of depression lower in Black and Native populations, but:
- Depression more likely to be persistent over time, and self-reported as severe and disabling, among Black adults
- Black adults half as likely to access mental health care as whites

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1. NCES-Dept of Ed Report, 2017
2. EdBuild Report, 2019
4. Gao et al, 2018 (NHIS)
5. Dopen et al, 2018 (NHIS)
6. Cokkinides et al, 2008 (NHIS)
Recognizing Resilience

Cognitive Reserve

- Adaptability of cognitive processes ➔ compensate for brain aging or insult
- Traditional proxies: educational attainment, occupational complexity, mentally stimulating leisure activity
- These variables may represent different underlying experiences and constructs in the context of systemic racism
  - Eg, Seminal work on education quality vs quantity
  - Eg, Government boarding schools for Native children

Assets and Strengths

- Protective sources of resilience and strength may be community-specific
  - Eg, Black caregiver experiences (Fabius et al, 2020)
- Importance of the “Us/We”: Community ties, interdependence (Croff 2020)
- Existing resources may be not be known, recognized, or documented by dominant societies


Anti-Racism and Intervention Work

Asset Based Community Development (ABCD) Outreach Model

- Identify the community
- Address the communities needs/wants
- Fabric work of community
- Invest in the community
- Provide resources identified by the community
- Recognize the community as experts
- Validate the community
- Commitment from the community

McKnight & Kretzmann (1993). Building Communities From the Inside Out: A Path Toward Finding and Mobilizing a Community’s Assets
Milwaukee WAI

Our Five Integrated Mission Areas

Outreach
Fostering partnerships to develop and deliver culturally appropriate programming

Community and Professional Education
Collaborating with community organizations to help navigate available programming; advising on best care practices

Service
Reducing barriers that impede access to information and services through building trust, credibility, and partnerships

Advocacy
Provide a voice for the community in research settings; advise researchers on barriers to research participation and support recruitment and retention best practices

Research
Advancing dementia research through engagement and inclusion of underrepresented populations in cutting-edge science

The Amazing Grace Chorus

“It’s fun. And the love, you can feel the love around here. It’s very nice.” Mr. Steve Mays

“The people in the audience can hear what I can do.” Mr. Wallace Phillips

“(Memory loss) is not something that should be hidden. It should be embraced.” Ms. Delois Johnson
Pisando Fuerte

Pisando Fuerte a linguistically and culturally adapted version for Spanish speakers of “Stepping On”, which is an evidence-based fall prevention program.

Oneida Helping Oneida

**Aim 1:** Describe associations between demographic characteristics and resource utilization by ADRD caregivers in the Oneida Nation.

**Aim 2:** Identify cultural and community-related barriers and facilitators impacting utilization of caregiver resources through qualitative interviews with ADRD caregivers.
Thank you!

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