

Racial Discrimination as a Social Determinant of Health: Findings and Needed Research

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A Driver of Early Interest in Racism and Health

Racial/ethnic Disparities Persist

Earlier onset of Disease

Greater severity of Disease

Residual Racial Differences at every SES level

Racism and Health: Mechanisms

- Institutional discrimination can restrict socioeconomic attainment and group differences in SES and health.
 - Segregation can create pathogenic residential conditions.
 - Discrimination can lead to reduced access to desirable goods and services.
 - Internalized racism (acceptance of society's negative characterization) can adversely affect health.
 - Racism can create conditions that increase exposure to traditional stressors (e.g. unemployment).
 - Experiences of discrimination may be a neglected psychosocial stressor.
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Perceived Discrimination:

*Experiences of discrimination are a
neglected psychosocial stressor*

Early Studies: Discrimination & Health

- Most studies were of mental health outcomes
- Other self-reported indicators of health widely used
- Most studies were cross-sectional
- Most studies focused on adults
- Most studies were U.S.-based
- Most focused on African Americans

*Challenges to Research on Perceived
Discrimination and Mental Health*

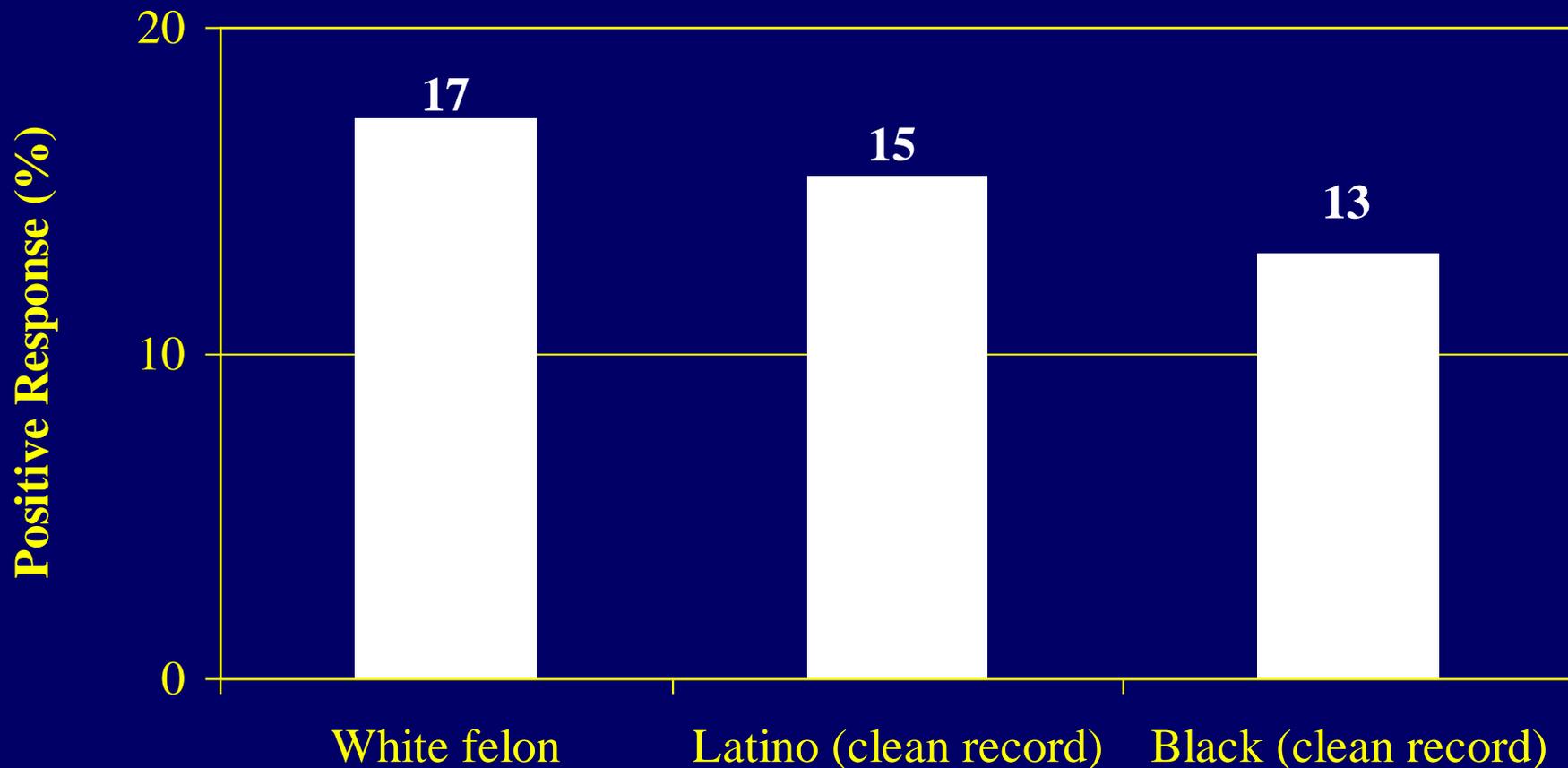
Key Questions

- Does it really make sense to talk about racism today?
 - What is the contribution of shared response bias between measures of discrimination and self-report measures of health?
 - Are mentally ill individuals (mis-)perceiving discrimination that does not even exist? That is, to what extent are reports of discrimination and health driven by selective recall as a function of current mental health?
 - What are the key psychological confounding factors (such as social desirability, neuroticism, self-esteem) that could drive observed associations?
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Percent of Job Applicants Receiving a Callback

Criminal Record	White	Black
No	34%	14%
Yes	17%	5%

Race, Criminal Record, and Entry-level Jobs in NY, 2004



NSBA Prospective Analyses

- Study of 779 black adults in Wave 2 (1987-1988) and Wave 3 (1988-1989) of the National Study of Black Americans (NSBA)
- High psychological distress and depression at Wave 2 are unrelated to reports of discrimination at Wave 3 – indicating that poor mental health did not predict subsequent reports of discrimination
- Perceived racial discrimination at Wave 2 were associated with high levels of psychological distress, but not depression, at Wave 3

*Recent Research on Perceived
Discrimination and Health*

2009 Review

- 115 studies in PubMed between 2005 and 2007
- Some longitudinal data
- Attention to the severity and course of disease
- Many studies of Asians and a few studies of whites
- International studies:
 - national: New Zealand, Sweden, & South Africa
 - Australia, Canada, Denmark, the Netherlands, Norway, Spain, Bosnia, Croatia, Austria, Hong Kong, and the U.K.
- Association of discrimination with health robust after adjustment for psychological confounders

Perceived Discrimination and Health

- Discrimination is associated with elevated risk of
 - diabetes risk (Hemoglobin A1c)
 - substance use (smoking, alcohol, other drugs)
 - breast cancer incidence
 - uterine myomas (fibroids)
 - subclinical carotid artery disease (IMT; intima-media thickness)
 - Delays in seeking treatment, lower adherence to treatment regimes, lower rates of follow-up
- Discrimination accounts, in part, for racial/ethnic disparities in health, in U.S., and elsewhere

Discrimination and Blood Pressure

- Discrimination consistently associated with ambulatory blood pressure
- Findings on hypertension mixed
- Recent studies indicate that where associations exist, they may be sex specific, and may be heavily dependent on psychosocial processes, coping style, and the measure of discrimination
- Recent studies also reveal that exposure to discrimination contributes to the elevated levels of nocturnal blood pressure among blacks (Brondolo et al., 2008; Tomfohr et al., 2010).

Major Experiences of Discrimination

- At any time in your life, have you ever been unfairly fired?
- For unfair reasons, have you ever not been hired for a job?
- Have you ever been unfairly denied a promotion?
- Have you ever been unfairly stopped, searched, questioned, physically threatened or abused by the police?
- Have you ever been unfairly discouraged by a teacher or advisor from continuing your education?
- Have you ever been unfairly prevented from moving into a neighborhood because the landlord or a realtor refused to sell or rent you a house or apartment?
- Have you ever moved into a neighborhood where neighbors made life difficult for you or your family?
- Have you ever been unfairly denied a bank loan?
- Have you ever received service from ... a plumber or car mechanic that was worse than what other people get?

Major Experiences of Discrimination: Additional Questions

- What do you think was the main reason for this experience?
 - When was the last time this happened?
 - How many times has this happened during your lifetime?
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Every Day Discrimination

In your day-to-day life how often have any of the following things happened to you?

- You are treated with less courtesy than other people.
- You are treated with less respect than other people.
- You receive poorer service than other people at restaurants or stores.
- People act as if they think you are not smart.
- People act as if they are afraid of you.
- People act as if they think you are dishonest.
- People act as if they're better than you are.
- You are called names or insulted.
- You are threatened or harassed.

What do you think was the main reason for these experiences?

Discrimination & Health: An Example

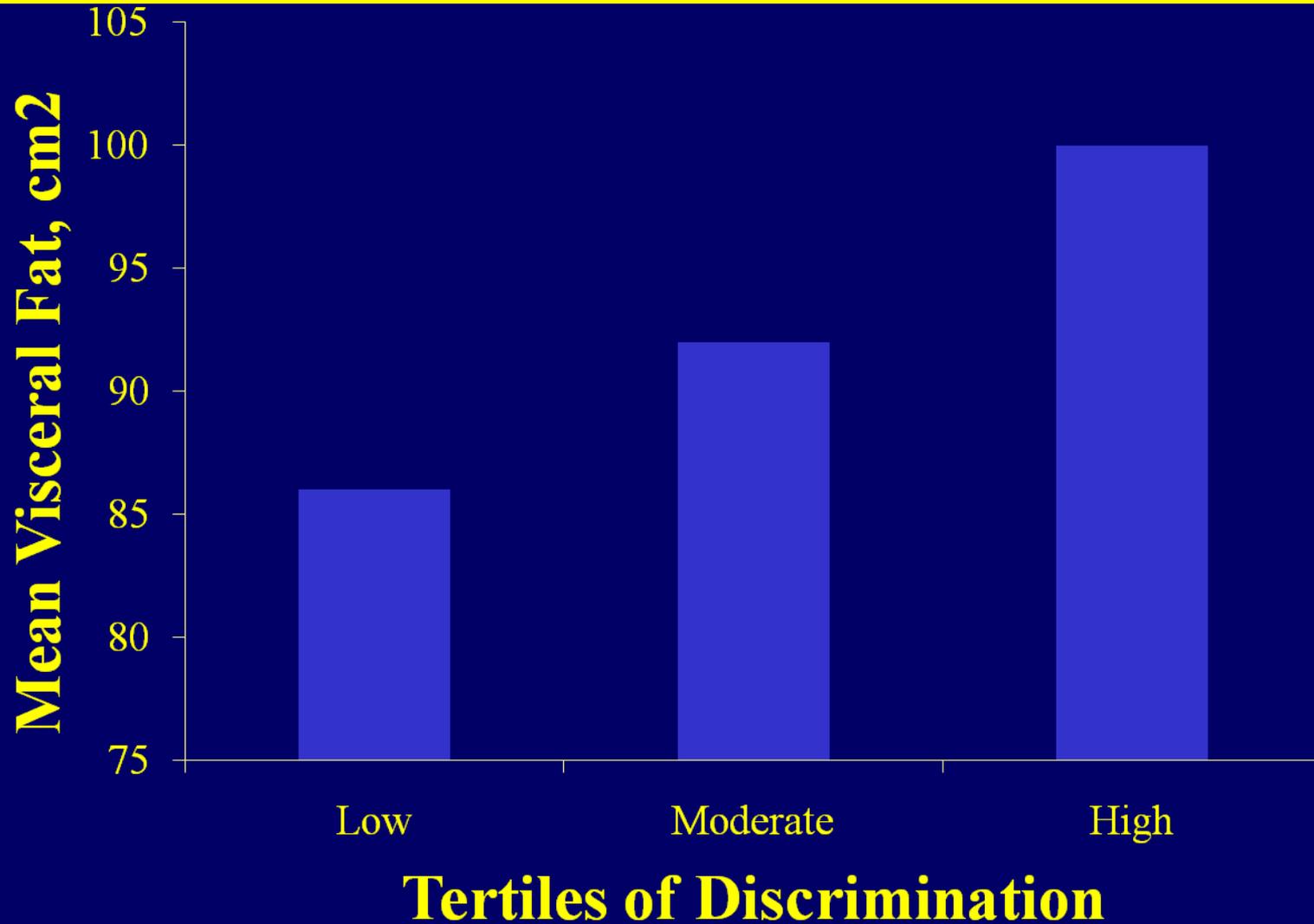
Dr. Tene Lewis



Discrimination & Health: Tene Lewis et al

- **Everyday Discrimination: positively associated with:**
 - coronary artery calcification (Lewis et al., Psy Med, 2006)
 - C-reactive protein (Lewis et al., Brain Beh Immunity, 2010)
 - blood pressure (Lewis et al., J Gerontology: Bio Sci & Med Sci 2009)
 - lower birth weight (Earnshaw et al., Ann Beh Med, 2013)
 - cognitive impairment (Barnes et al., J Intl Neuro Psy Soc, 2012)
 - poor sleep [objective & subjective] (Lewis et al, Hlth Psy, 2012)
 - mortality (Barnes et al., J Gerontology: Bio Sci & Med Sci, 2008).
 - visceral fat (Lewis et al., Am J Epidemiology, 2011)
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Discrimination & Visceral Fat



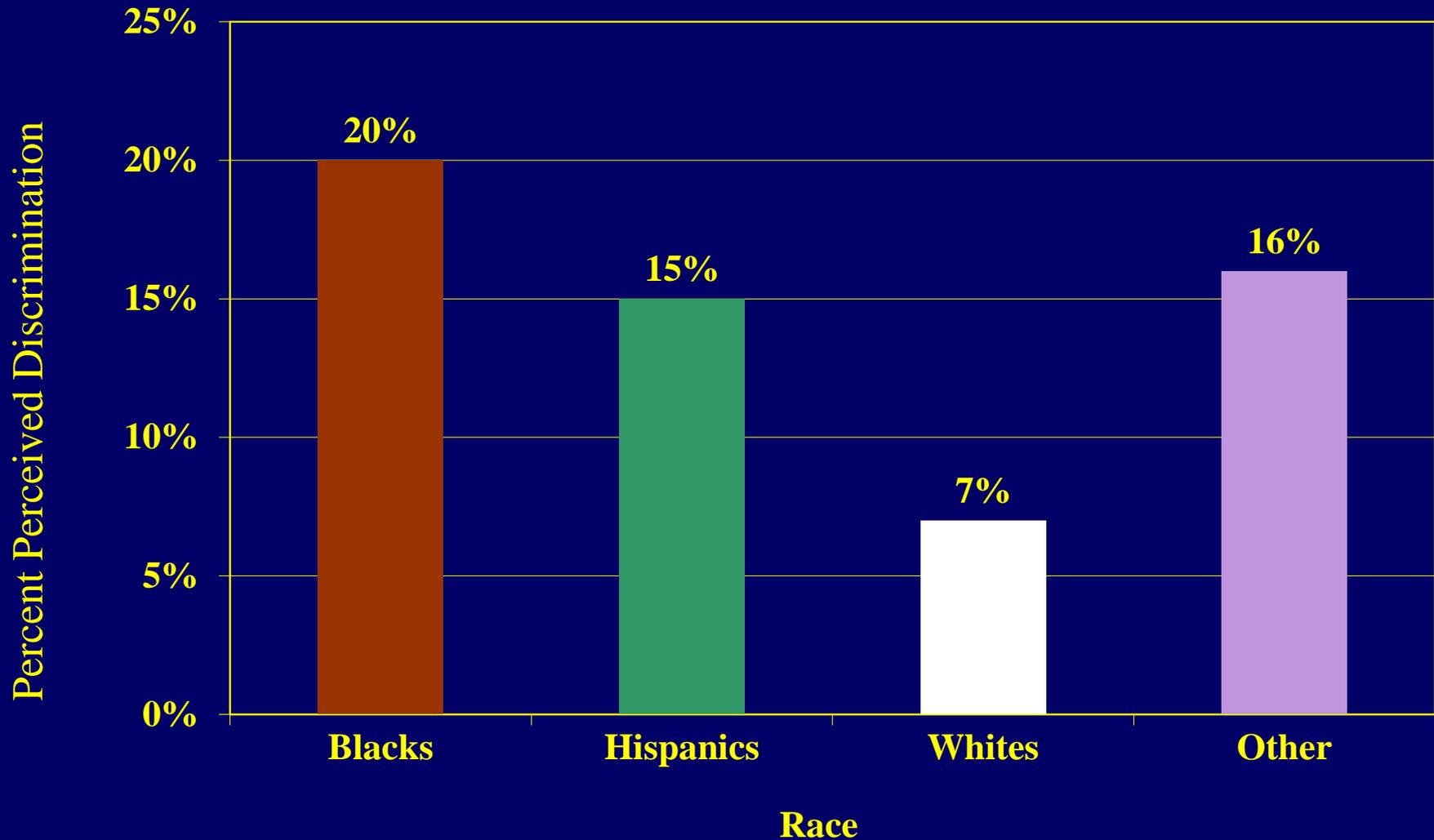
Needed Research

Understanding Life Course Exposure

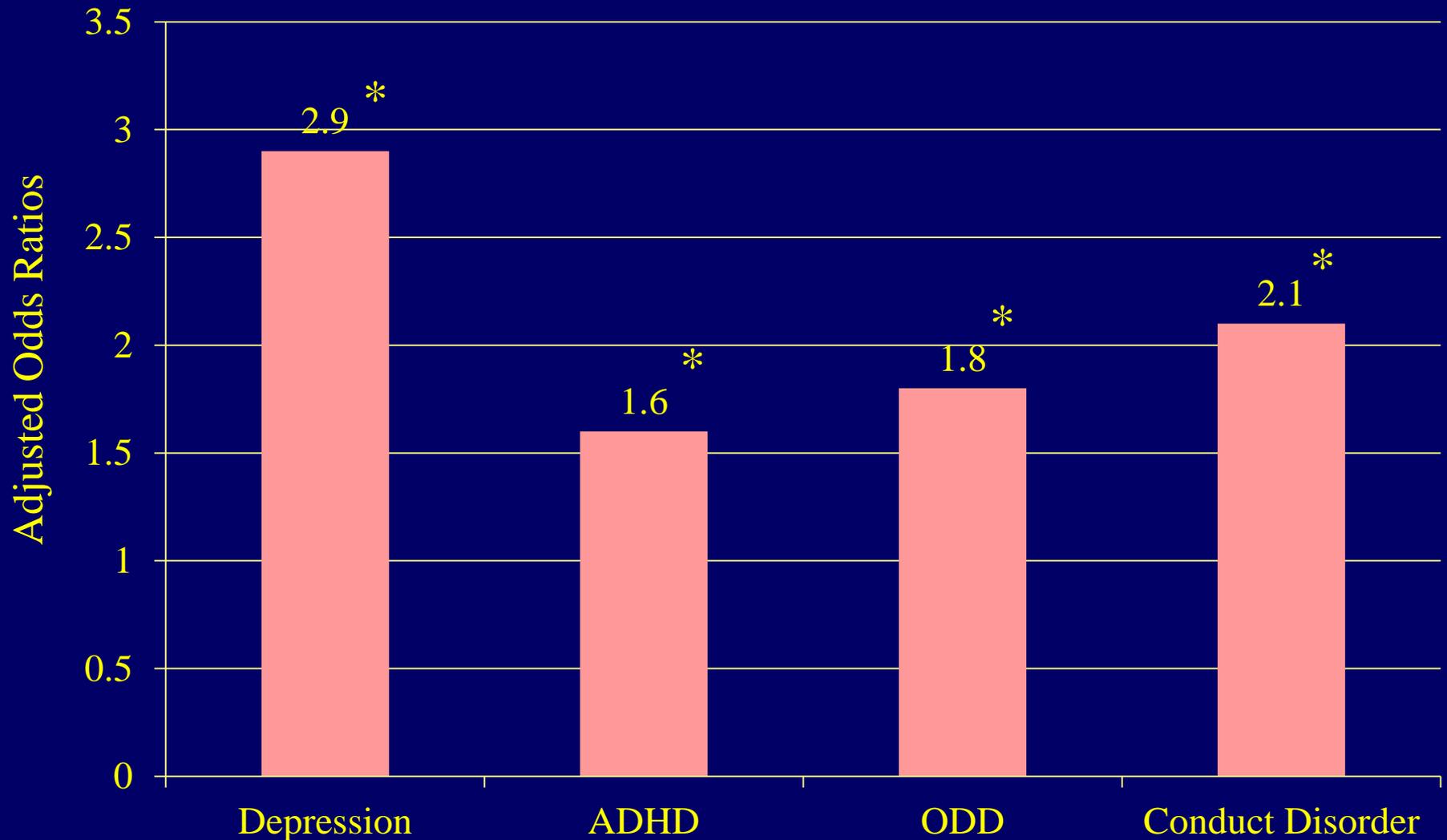
It Starts Early

- Cross-sectional study of 5,147 fifth graders (10 - 11 years old) from 3 US metropolitan areas
- Measure: a positive response to either “Have you ever been treated badly because of your race or ethnicity?” or “because of the color of your skin?”
- Mental Health: DSM-IV symptoms of 4 disorders: depression, attention deficit hyperactivity disorder (ADHD), oppositional defiant disorder (ODD) and conduct disorder in prior 12 months

Prevalence of perceived Discrimination



Discrimination and Mental Health Problems



Needed Research

Measuring Discrimination Comprehensively

Types of Stressors

Comprehensive Coverage:

- Major Life Events (Acute)
 - Chronic Stressors (Role Related)
 - Daily Hassles
 - Traumas
 - Macro-Stressors?
 - Non-Events
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Other Race-related aspects of Social Experience

Historical Trauma

Online Discrimination

Race Consciousness

Perceived Threat of Discrimination

Heightened Vigilance Scale

In dealing with the experiences that you just told me about, how often do you

1. Think in advance about the kind of problems that you are likely to experience?
2. Try to prepare for possible insults before leaving home?
3. Feel that you always have to be careful about your appearance (to get good service or avoid being harassed)?
4. Carefully watch what you say and how you say it?
5. Carefully observe what happens around you?
6. Try to avoid certain social situations and places?

Heightened Vigilance and Hypertension

- Study of 3,105 adults in Chicago (CCAHS Study)
- Blacks have higher levels of vigilance than whites
- Vigilance associated with increased odds of hypertension for Blacks and Hispanics but not Whites
- Interaction between R/E and vigilance: at low levels of vigilance, racial disparities in hypertension are small. As vigilance increased, the racial/ethnic gap in hypertension widened for Blacks and Hispanics (marginally signif.)
- Vigilance remains predictive of hypertension when adjusted for hypertension risk factors & discrimination

Needed Research

*Understanding Racial and Non-racial
Discrimination*

Whitehall Studies

Irrespective of attribution, the perception of unfair treatment may have health consequences

In the Whitehall study, perceived unfairness has been related to

- incident coronary events (De Vogli et al. 2007a),
- incident psychiatric morbidity (Ferrie et al. 2006),
- metabolic syndrome (De Vogli et al. 2007b).

These studies are not framed within the context of discrimination but unfairness is operationalized with measures similar to those used in the discrimination literature.

How Stress Affects Health

Identify and Examine Plausible Pathways:

1. Shapes Health Behaviors
2. Can affect compliance with medical regimens
3. Creates Negative Emotional States that can affect specific physiological systems e.g. cardiovascular, immune, neuroendocrine

Disparities in the Progression and Severity of Disease highlight a Potential Role of Discrimination in Access, Quality and Intensity of Care

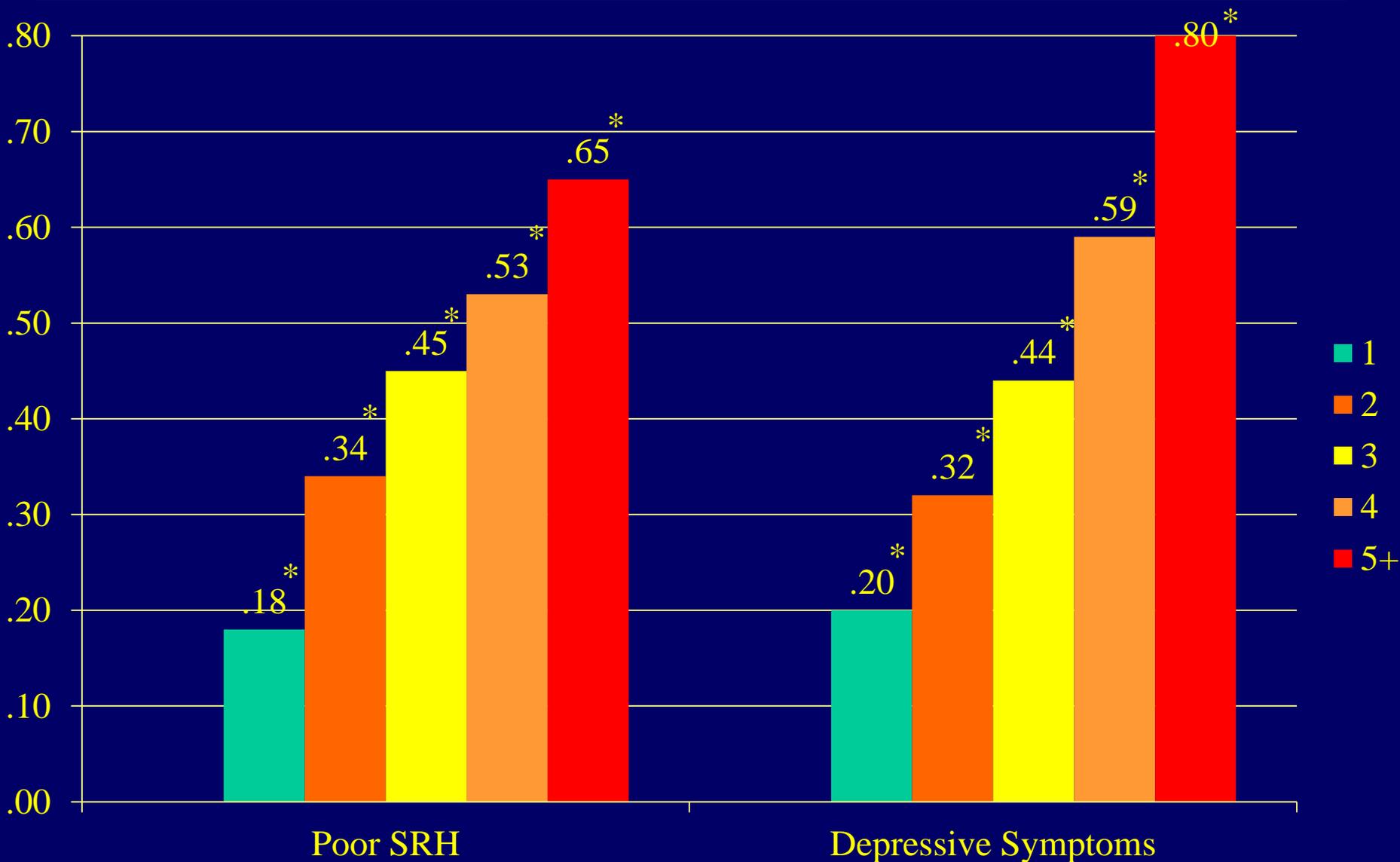
Needed Research

Understanding Discrimination **within the
context of other stressors**

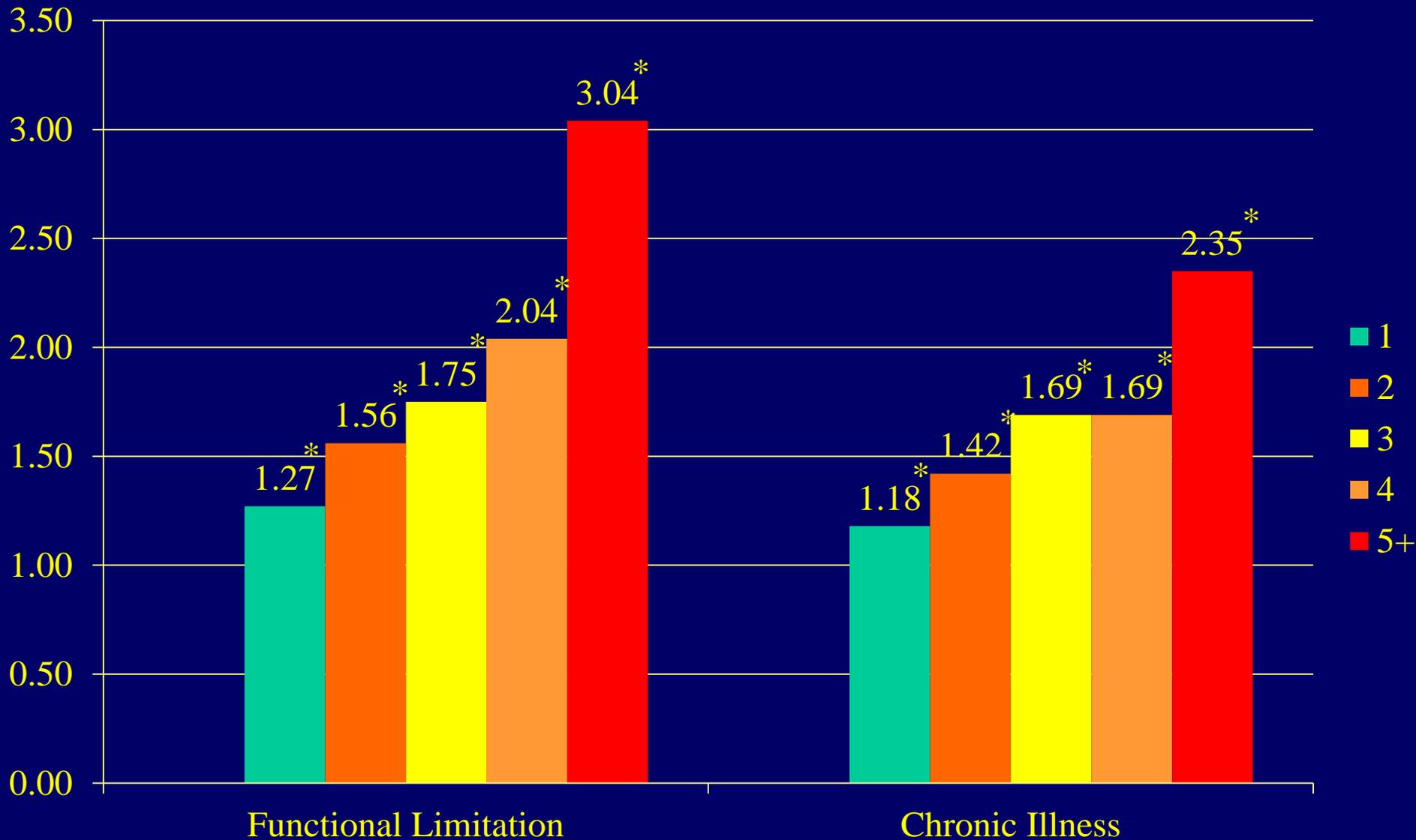
Comprehensive Measure of Stressors

- Based on prior research, we focus on 8 domains that reflect key arenas in which people operate (e.g., home, job, neighborhood) & major roles/statuses they assume
- 8 domains:
 1. Acute life events
 2. Financial
 3. Job discrimination
 4. Childhood adversity
 5. Work Stressors
 6. Life discrimination
 7. Relationship Stress
 8. Neighborhood stress
- Multiple indicators in each stress domain
- Correlations among stressors are low (range: -0.1 to .33)

Stressors and Poor Self-Rated Health / Depressive Symptoms



Stressors and Functional Limitations / Chronic Illness



Needed Research

Understanding Perceived Discrimination
within the context of other Dimensions of
Racism

*Residential Segregation is a
place-based example of
Institutional Discrimination that
has pervasive adverse effects on
health*

Residential Segregation and SES

A study of the effects of segregation on young African American adults found that the elimination of segregation would erase black-white differences in

- Earnings
- High School Graduation Rate
- Unemployment

And reduce racial differences in single motherhood by two-thirds

Racial Differences in Residential Environment

- In the 171 largest cities in the U.S., there is not even one city where whites live in ecological equality to blacks in terms of poverty rates or rates of single-parent households.
- “The worst urban context in which whites reside is considerably better than the average context of black communities.” p.41

Research Implications: Distinctive Patterns

- What effects do these distinctive residential environments have on normal physiological processes?
 - How are normal adaptive and regulatory systems affected by the harsh residential environment of blacks?
 - To what extent does minorities' biological adaptation to their residential environments lead to some biological profiles that are different from other groups and some distinctive patterns of interactions (between biological and psychosocial factors)?
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Potential for Epigenetic Effects

- Research on the role of genetics in racial disparities in health has historically emphasized gene frequency over gene expression.
- Biology is not static but adapts to environmental conditions
- Epigenetics refers to changes in the patterns of gene expression resulting from changes in a chromosome without alterations in the DNA sequence
- Given the distinctive environments of racial minorities in the U.S., more systematic attention should be given to identifying and understanding potential epigenetic effects.

Needed Research

Multi-level interventions to reduce the legacies of racial/ethnic inequality, and the levels of intolerance, incivility, and anti-immigrant sentiment

Conclusions

- Studies of discrimination and health continue to proliferate
 - The consistency of an inverse association between discrimination, operationalized in various ways, and an increasingly broad range of health outcomes, across multiple population groups, in a wide range of national and cultural contexts, is impressive
 - It lends credibility to the plausibility that discrimination is an important emerging risk factor for disease
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