Racial analysis of social determinants of psychosis in the US: A better frame for unmet needs?

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Session 3

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NATIONAL ACADEMIES Sciences Engineering Medicine

FORUM ON MENTAL HEALTH AND SUBSTANCE USE DISORDERS
Workshop on
EARLY INTERVENTIONS FOR PSYCHOSIS: FIRST EPISODES AND HIGH-RISK POPULATIONS

From Womb to Neighborhood: A Racial Analysis of Social Determinants of Psychosis in the United States

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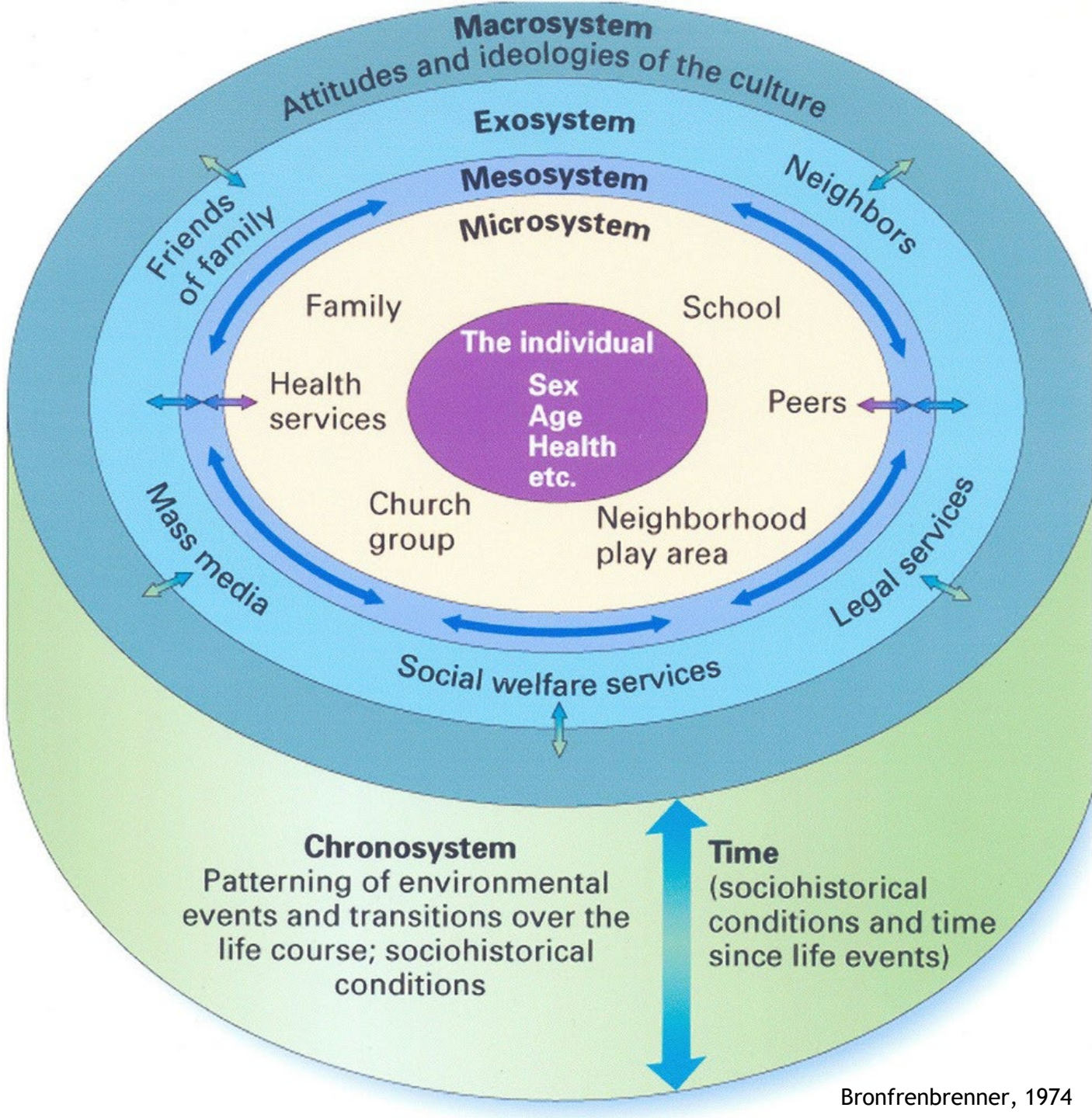
Describing the Context of Human Development:

Bronfrenbrenner's Bio-Ecological Model

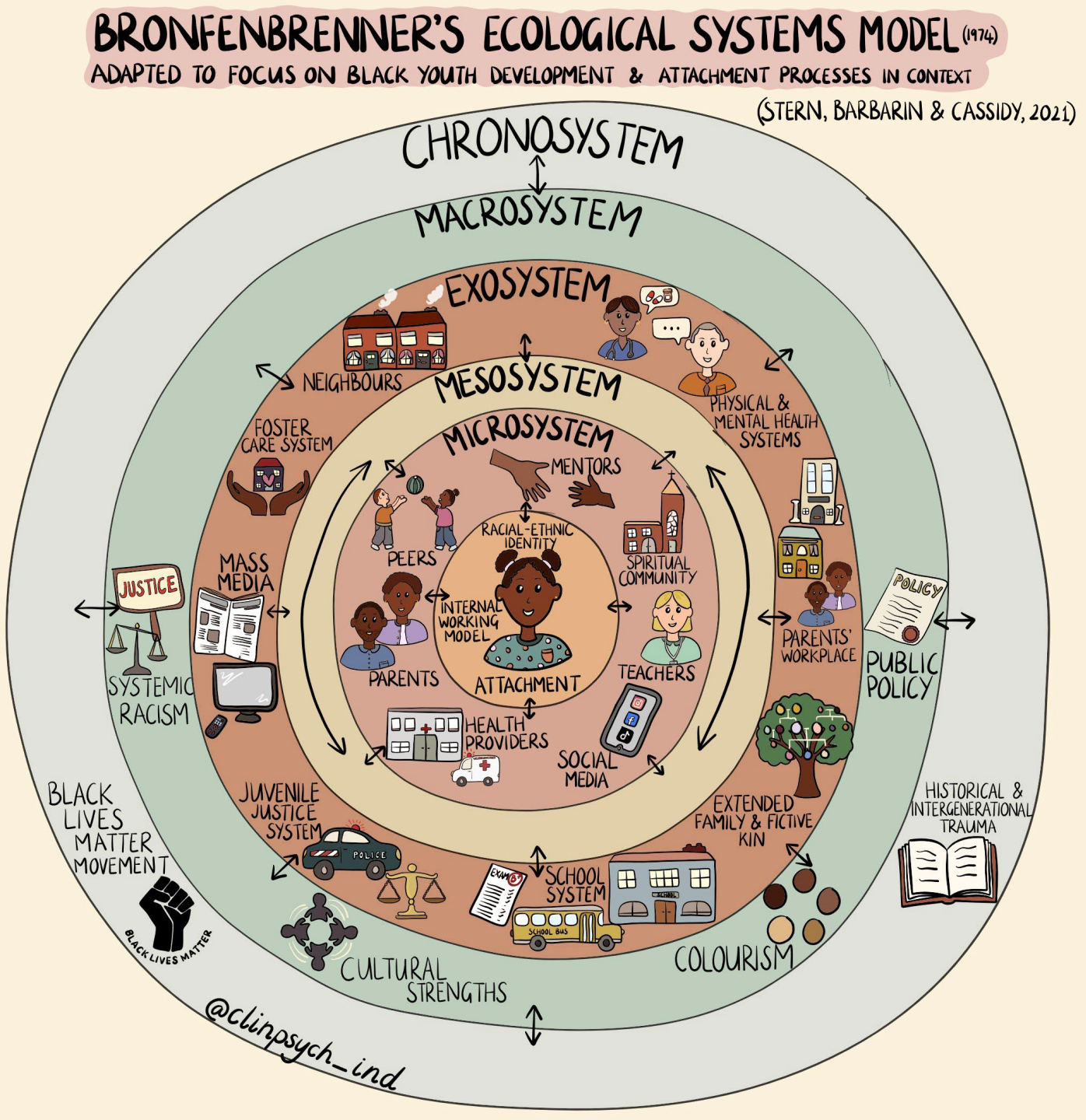
and

Biopsychosocial Model



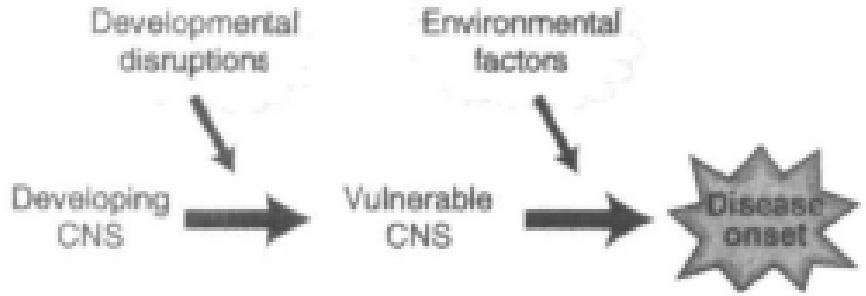
Bronfrenbrenner, 1974

Adapted model: Different contextual factors that influence Black youth development



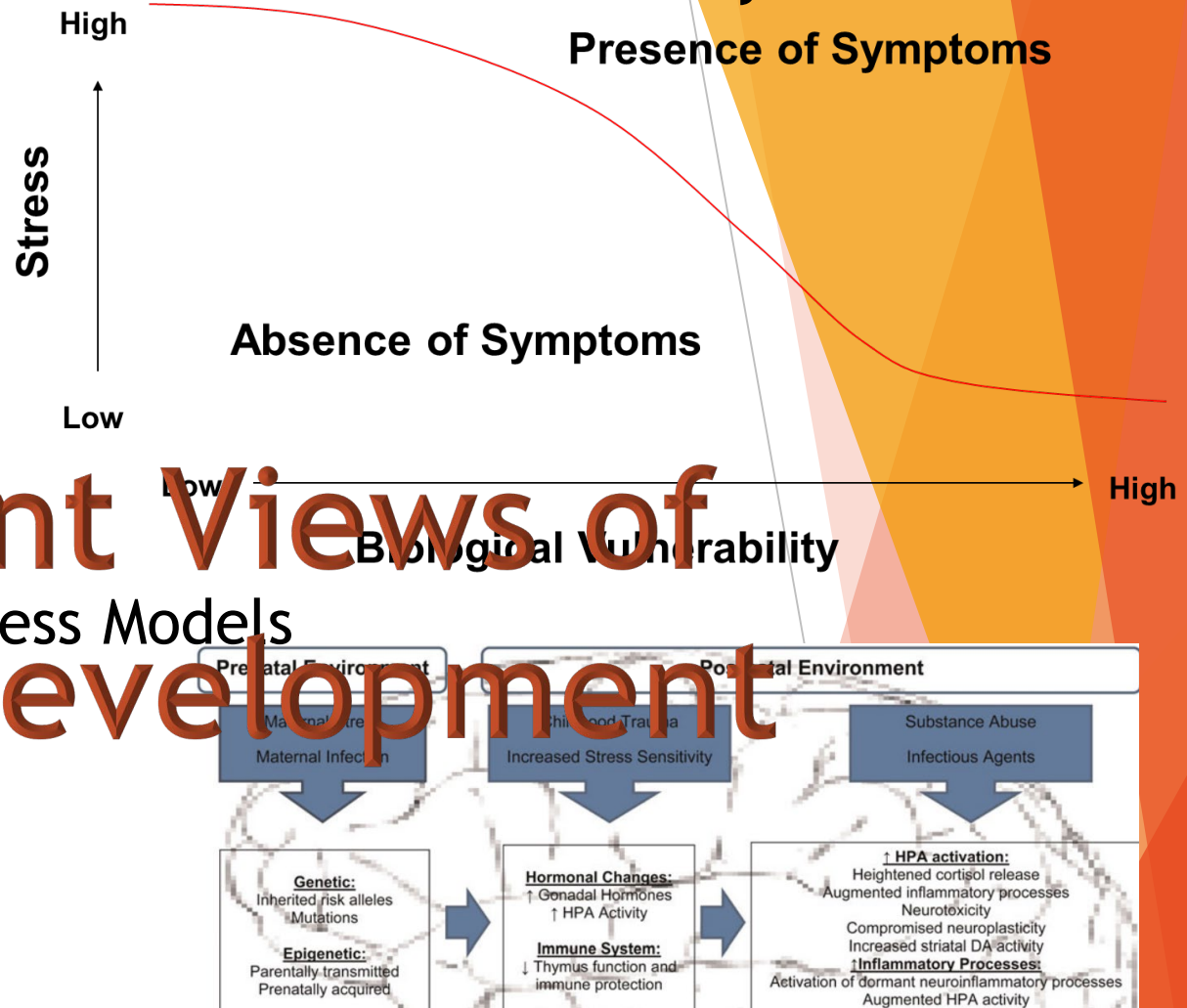
Predominant Views of Psychosis Development

"Two-Hit" Model of Schizophrenia



Maynard et al., 2001

Stress-Vulnerability Model



Diathesis-Stress Models

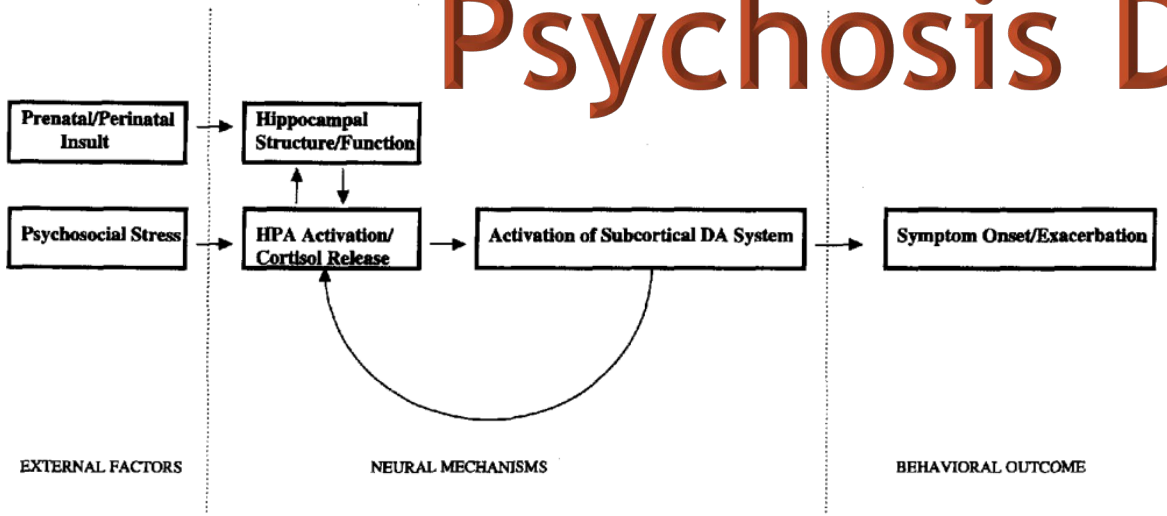


Figure 1. Neural mechanisms in the effects of stressors on individuals who are vulnerable to schizophrenia. HPA = hypothalamic–pituitary–adrenal; DA = dopamine.

Walker & Diforio, 1997

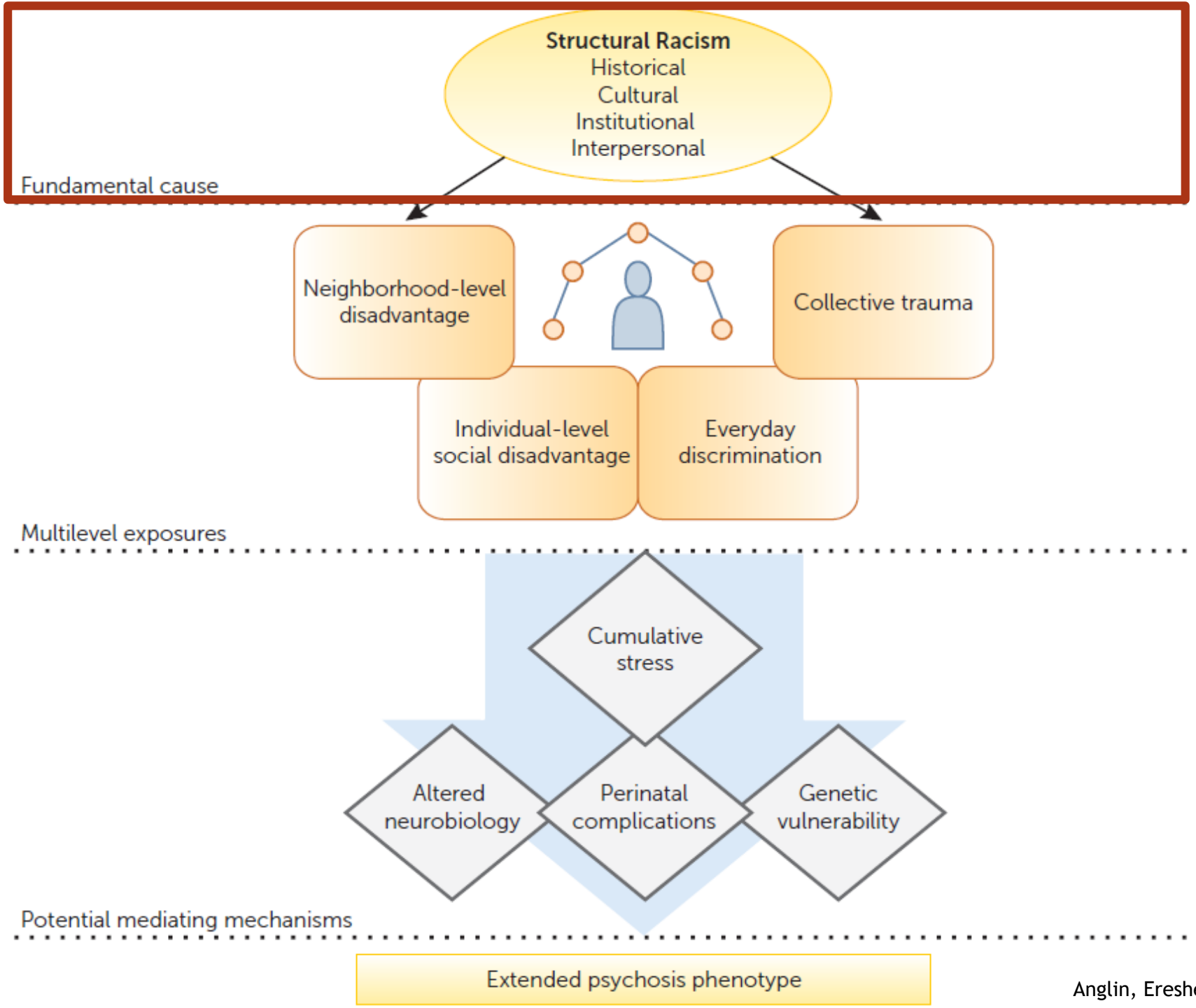
Walker et al., 2013

Reframing Psychosis Development

- Is psychosis centered within a person?
- How important is the socio-cultural/historical environment in the development of psychosis?
- Do we have the right frame?

We need to do a better job at understanding what drives psychosis and incorporate that into our work

Hypothesized model of systemic racism and psychosis in the United States



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Societal, Socio-Cultural, Historical Context

- US rooted in racial trauma
  - Genocide and theft of First Nations' land
  - Slavery, oppression, segregation (redlining)
  - Jim Crow, mass incarceration
  - Medical experimentation (e.g., Tuskegee)
  - Ongoing "othering" of other minorities (i.e., immigration)

- Racism is a fundamental cause of health inequity in the US
- Race/ethnicity is not the determinant:

Determinant = Systemic racism and the social environments one lives in

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Societal, Socio-Cultural, Historical Context

- Specific impact to the diagnosis and treatment of psychosis
  - Wealth inequities → different access to resources and healthcare
  - Distrust of systems (help-seeking, “compliance”)
  - Over-diagnosis of psychosis in Black/Latinx
    - Misinterpretation of spiritual/cultural practices
    - Healthy mistrust
    - Less mood diagnoses

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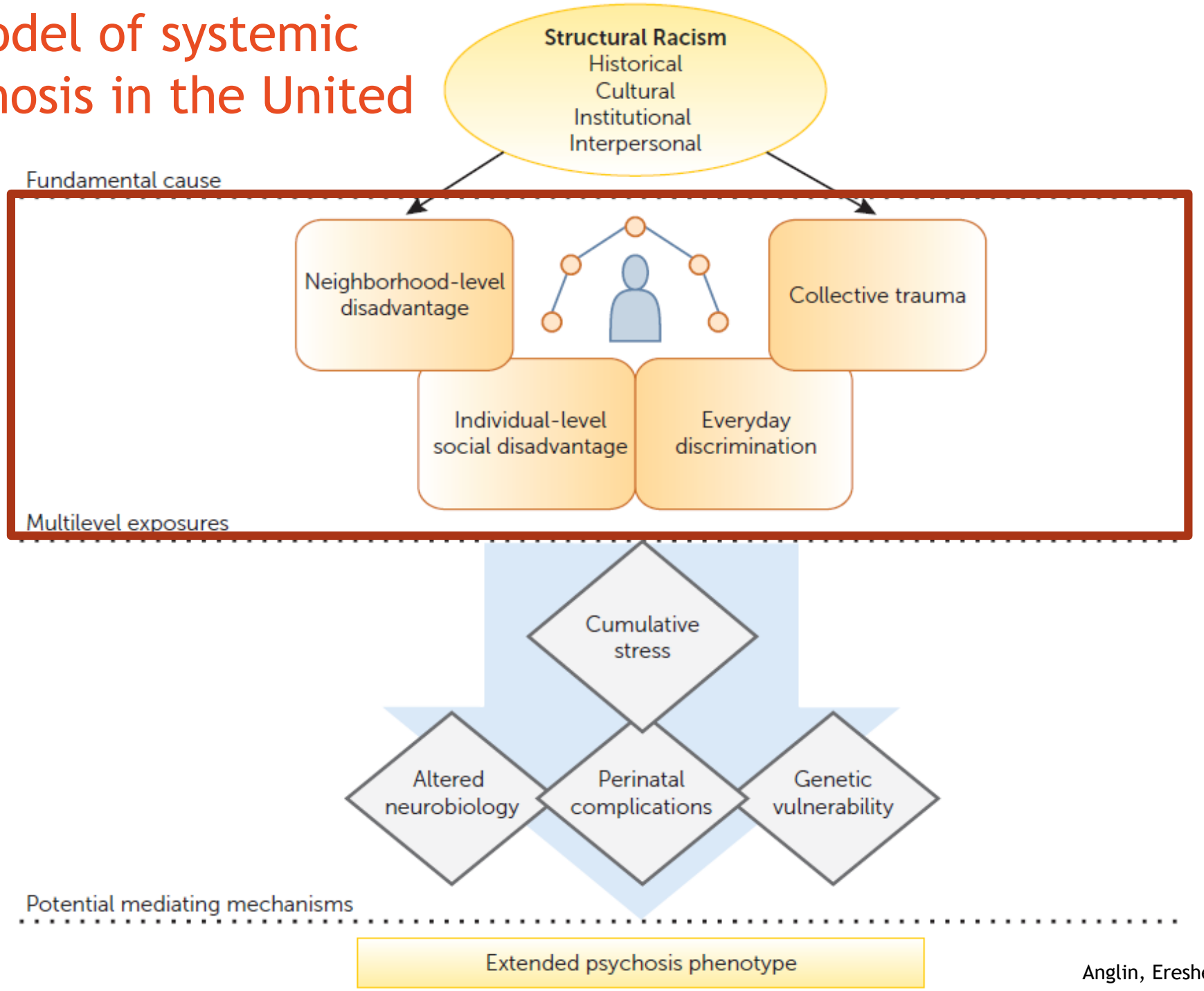
Hypothesized model of systemic racism and psychosis in the United States



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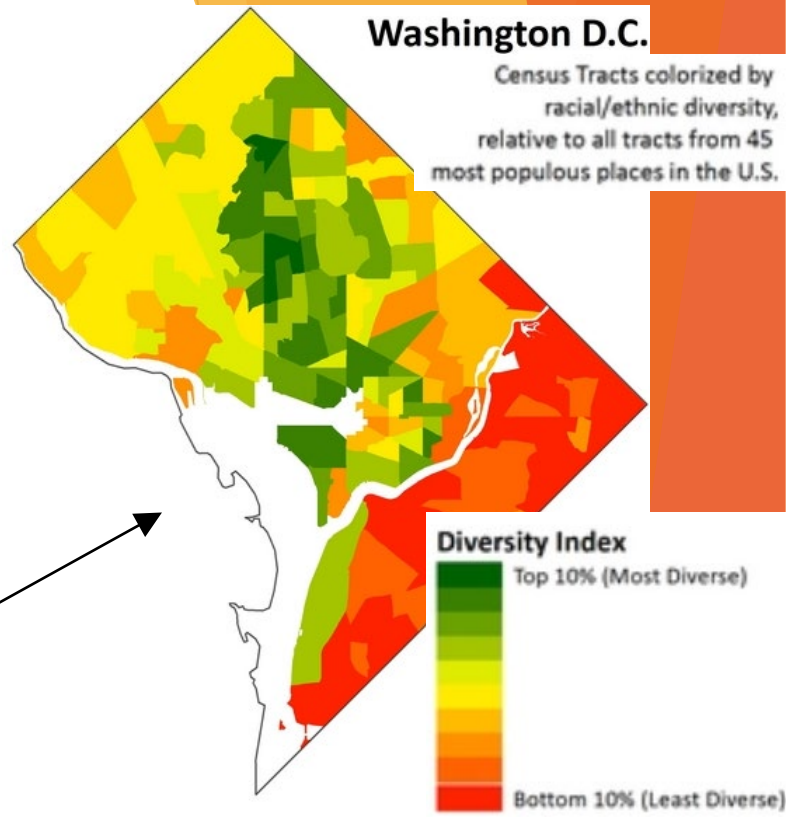
Adverse Neighborhood Conditions

Associated with increased psychosis-spectrum experiences

- Access to resources, opportunities, services:
  - Healthy food, safe water, affordable childcare, healthcare, education, employment, safe housing
- Urbanicity (population density) + low SES (mostly POC)
- ↑ Perceived neighborhood ethnic density (discordant make up of neighbors)
- ↑ Perceived neighborhood disorder (e.g., vandalism)
- ↑ Neighborhood disruption (e.g., fear of being "pushed out")
- Neighborhood residential instability (i.e., % neighbors living in multiple homes in 1 yr)

- Understand context via needs assessment
- Meet basic needs before treatment



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Trauma and Stressors

- Acute or Chronic

  61% of US pop ≥ 1 ACE

  ≥85% Trauma/ACES in Psychosis Spectrum

  ↑ Psychosis in Minorities with Trauma

- Dose-response pattern

  More trauma exposures, ↑ psychosis frequency/severity

- (Perceived) Discrimination: Status or perception of being "othered" and "marginalized" within the social hierarchy

Adverse Childhood Experiences

1. En
2. Ph
3. Se
4. En
5. Ne
6. Av
7. Wi
8. Witnessed violence in the community
9. Household substance abuse
10. Household member with mental illness
11. Household member in jail
12. Parent separation (e.g., divorce, death)
13. Separation (e.g., foster care, immigration)
14. Bullying
15. Discrimination
16. Romantic partner domestic violence

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Collective Historical, Racial Trauma

- Related to psychotic experiences
  - Police victimization (physical, sexual, psychological abuse, neglect)

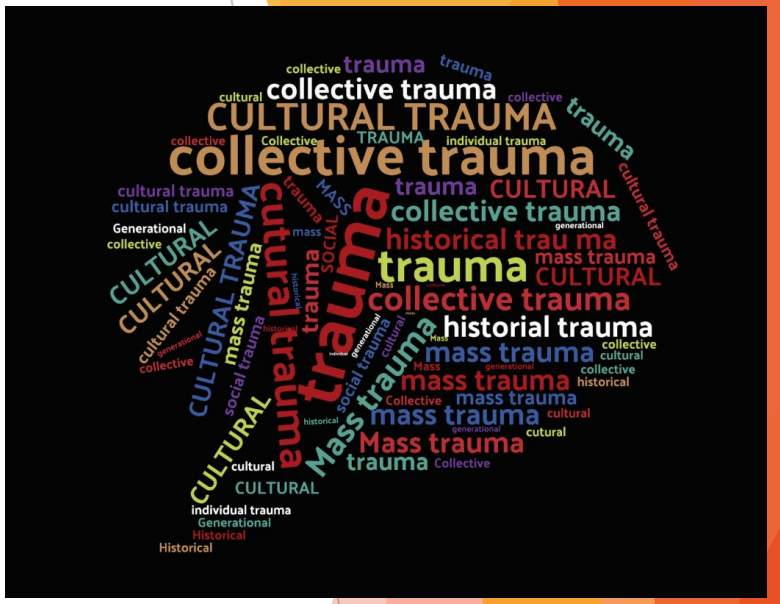
Lifetime risk of lethal police force

Black: 1 per 1,000
White: 39 per 100,000

Deaths per year due to police violence

US: 1,100 per year
England/Japan: 0-7 per year

  - Exposure to gun violence fatalities



Disproportionately impacting Black and Latinx Men

- Social health crises impacting POC deserve more attention
- Need to incorporate an individual, collective, and historical trauma/discrimination lens

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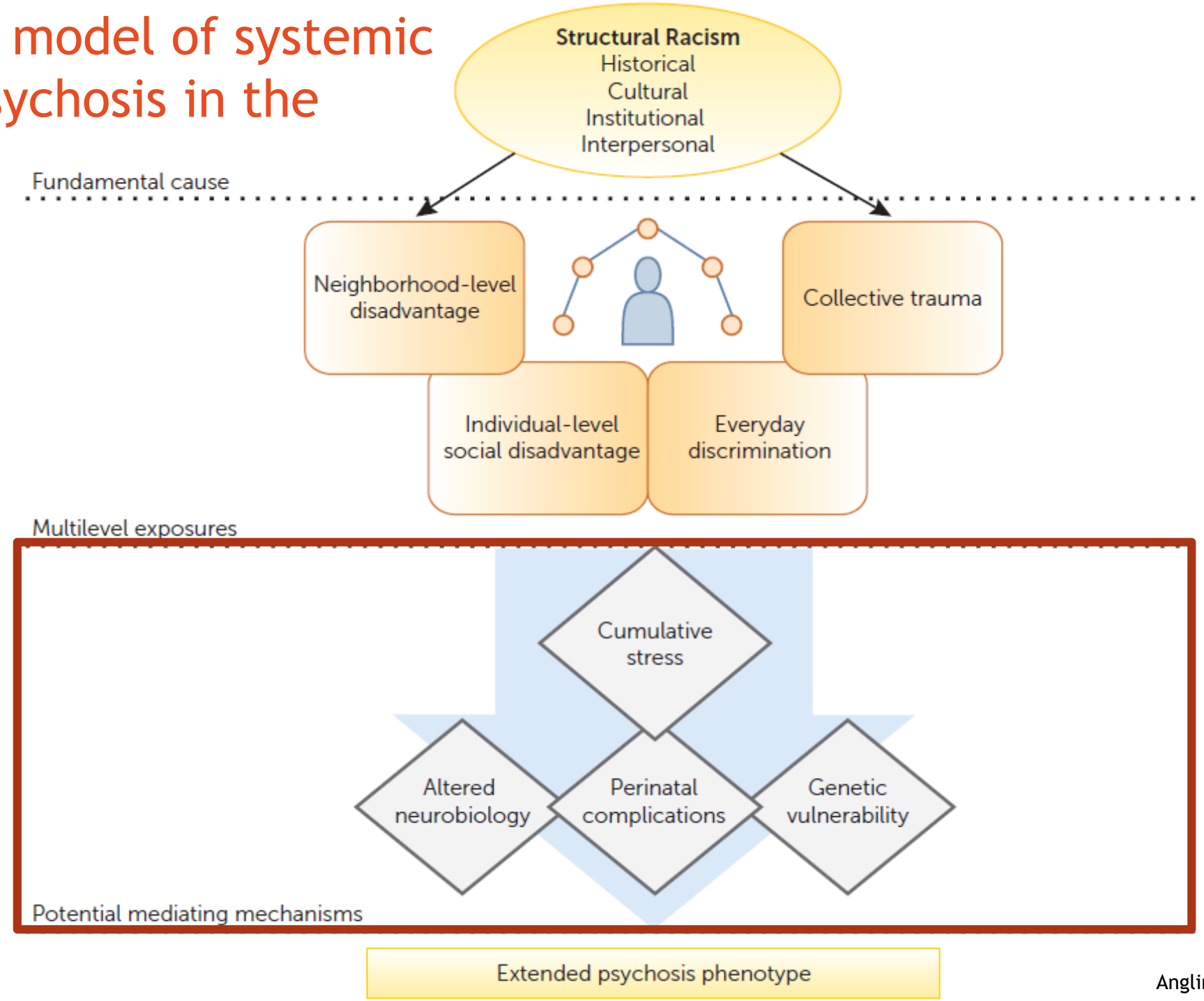
Hypothesized model of systemic racism and psychosis in the United States



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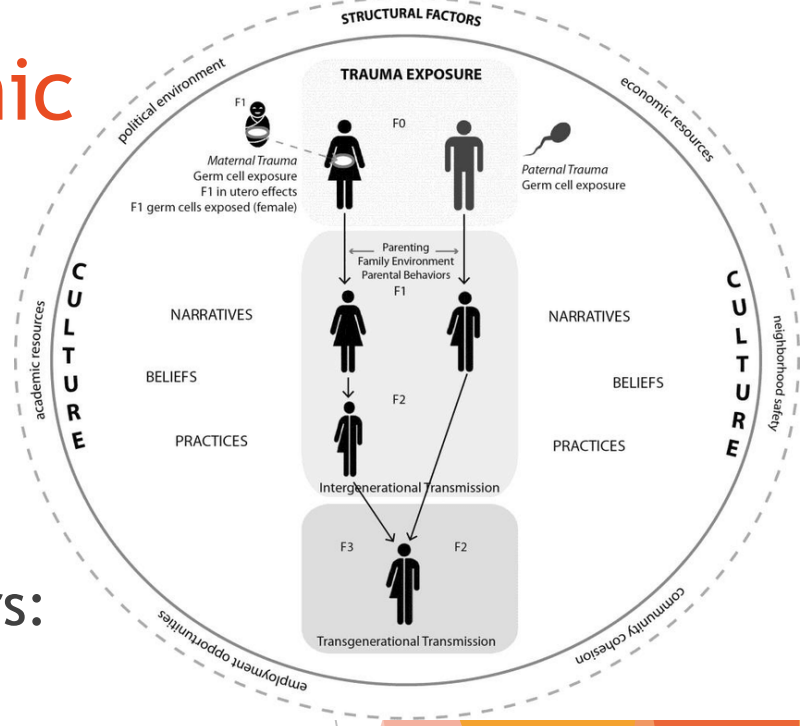
Pre- and Perinatal Factors in Racial and Ethnic Minorities in the US

- High rates of obstetric/birth complications:
  - ↓ Fetal growth, ↓ birth weight, pre-term delivery



Interaction with stress and perceived discrimination

- Neighborhood level:
  - Exposure to environmental contaminants (heat, pollution)
  - Perceived crime
- Individual/Stress biomarkers:
  - ↓ Cortisol
  - ↑ Inflammatory response (c-reactive protein, stress hormones, ↑cytokines)
  - Allostatic load
- In offspring, linked to ↑ prevalence of psychosis
- ↓ access to prenatal care and income DO NOT explain disparities
- Other birth complications associated with development of psychosis
  - Maternal infection, nutrient alterations, hypoxia

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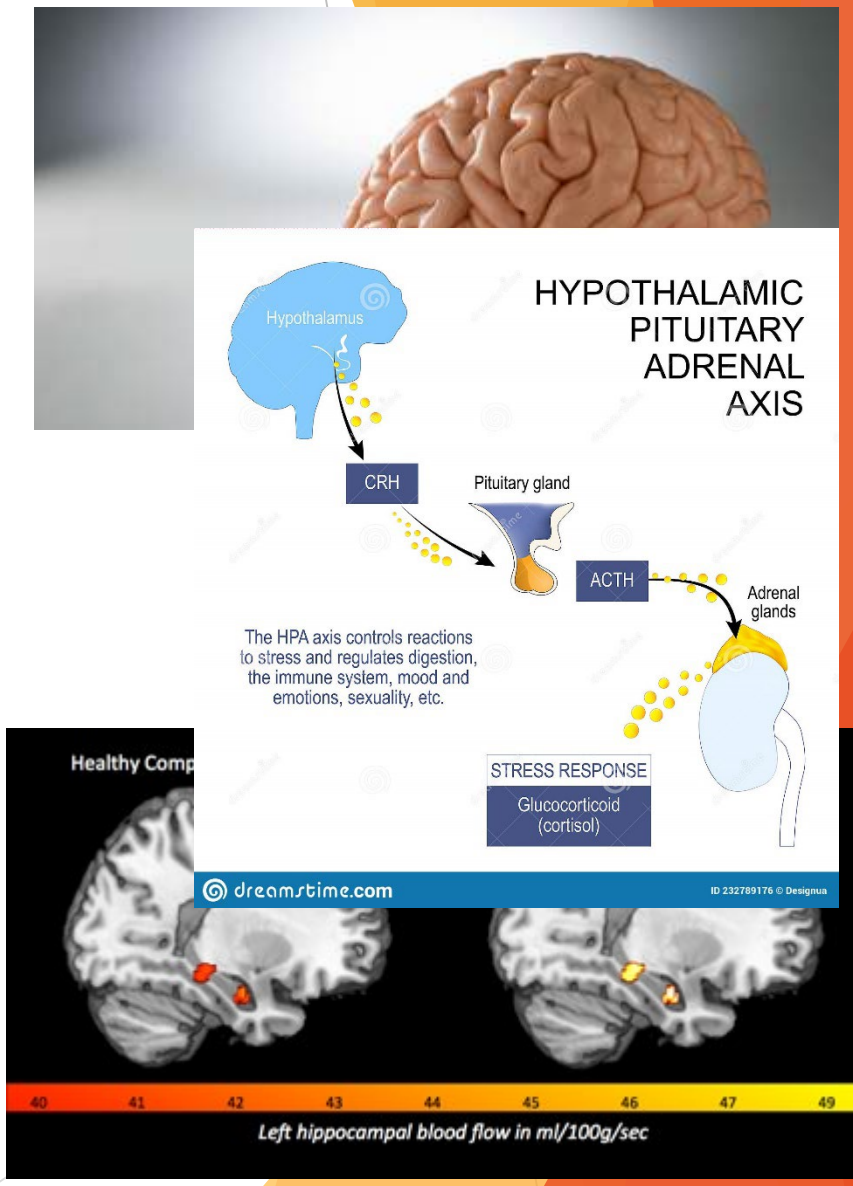
Biological mechanisms linking psychosis and discrimination

- Physiological and neurobiological
  - Threat appraisals, immune response
  - Altered brain development (lower volume)
- Chronic activation of stress system
  - Long-term changes to circuitry
  - Pairing threat cues to neutral stimuli
- Neural activation (amygdala, thalamus)



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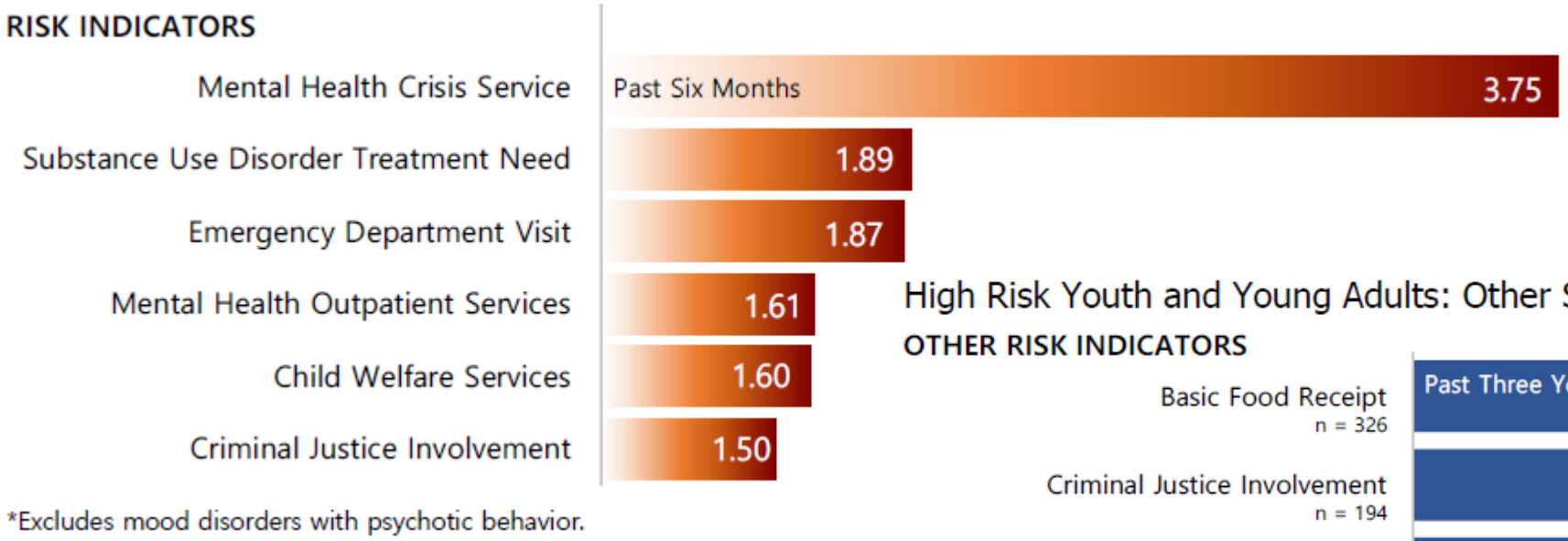
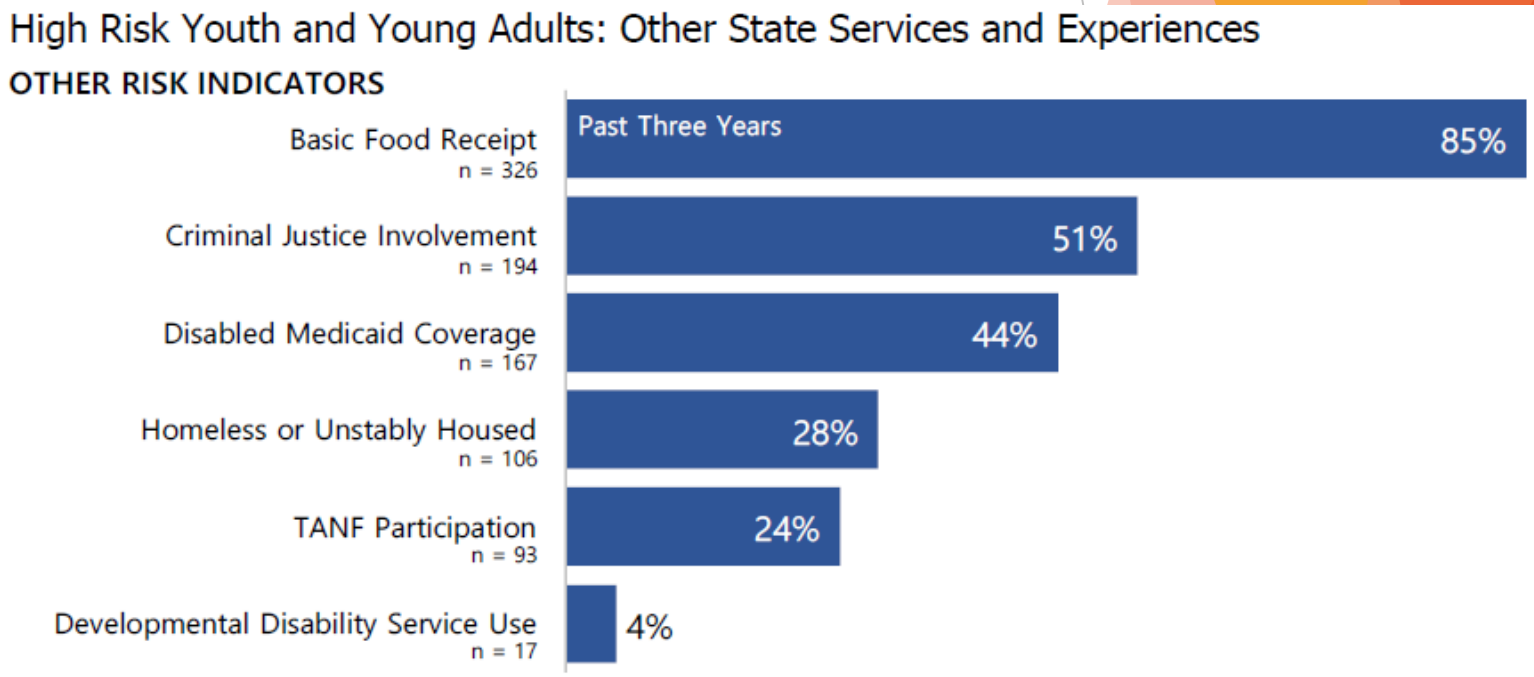
Other Predictors of Outcomes

- Child welfare
- Criminal justice involvement
- Homelessness/unstably housed





Washington State Report: Hong et al., 2019

Other Marginalized Groups

- Face similar experiences of everyday discrimination and cumulative stress
  - LGBTQI+ individuals
  - Religious minorities
  - Non-English speaking
  - Poor and rural
  - Individuals with disabilities
  - Etc.
- Historically not done a good job at including these experiences
- We need to create environments where people can live with dignity, respect, and equity

Recommendations

- Adopt an Anti-Racist and Equity/Justice Framework
  - Cultural humility
  - Empower most marginalized communities
  - Psychology/Psychiatry field needs to devote more efforts to address and dismantle structural racism and perpetuated social policies and norms
  - Shape these through:
    - Training and Education
    - Intervention Development
    - Funding and Public Health Priorities

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Recommendations (cont.)

- Training and Education
  - Integrate racial trauma in mental health training and practice for ALL professionals and leaders
    - Examples: Understand conditions that shape clinical presentations, practitioner-patient interactions, course of symptoms, and efficacy of treatment for psychosis
  - Use the DSM-5 Cultural Formulation Interview (Free!)
    - Interview: https://www.psychiatry.org/File%20Library/Psychiatrists/Practice/DSM/APA_DSM5_Cultural-Formulation-Interview.pdf
    - Guidelines: https://www.psychiatry.org/File%20Library/Psychiatrists/Practice/DSM/APA_DSM5_Cultural-Formulation-Interview-Supplementary-Modules.pdf

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Recommendations (cont.)

- Intervention Development
  - Optimize/personalize interventions: Incorporate social determinants in early intervention and treatment models
    - Example: Weisman de Mamani et al. (2014) developed a culturally informed manualized treatment for schizophrenia that focused on family collectivism and enhancing adaptive spiritual beliefs and practices → helped reduce psychiatric symptom severity and improved quality of life, especially for Latinx indviduals.
  - Multi-level and intergenerational approaches
  - Participatory methods to develop treatment that tackle racism in the community and prioritize underrepresented voices and perspectives

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Recommendations (cont.)

- Funding and Public Health Priorities
  - Adjust health care policy: How do we approach early intervention for psychosis for minorities?
    - Example: Health care policies could be reimagined to provide psychological intervention and protection to circumvent the detrimental impact of racial discrimination and stress on Black mothers.
  - Reliable psychosis incidence estimates for minorities, account for misdiagnosis
  - Multi-level targets
  - Community-partnered participatory research

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Take Homes

- A systemic racism frame better describes development of psychosis than traditional models
- Include other marginalized groups
- Enhance practice by building a critical consciousness about the ways behaviors and symptoms are connected to contexts
- Disproportionate number of marginalized people are represented among individuals with psychosis:
  - Trauma, discrimination, and neighborhood violence influence ability to receive treatment and avoid traumatic pathways to care
- Interplay of adversity and minority status in U.S. and the unique experience of marginalized groups
  → influence psychotic experiences, illness development, access to care, ability to recover

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