THE NIMH DIRECTOR'S
INNOVATION SPEAKER SERIES
2020–2021

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INNOVATION

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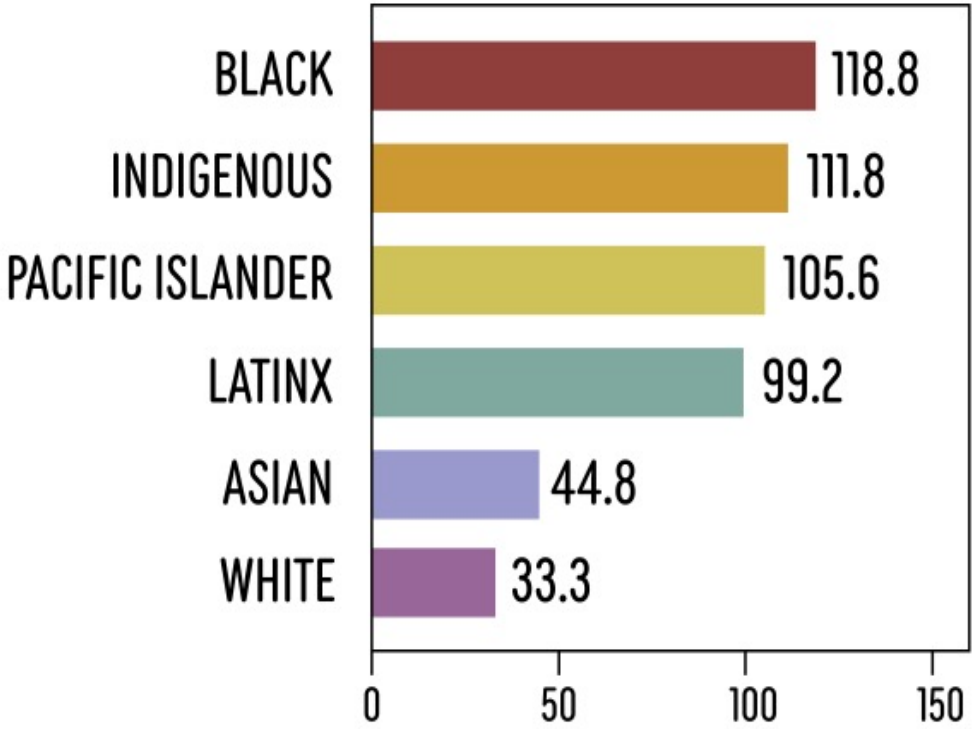
ADDRESSING ETHNORACIAL DISPARITIES IN MENTAL HEALTH RISK, ASSESSMENT, AND SERVICE DELIVERY

Takeaway

Causes & pathways of ethnoracial disparities in mental health (MH) are complex

Multi-level studies and strategies are needed to address disparities in:

- Risk of mental disorders
- Access to and use, quality & outcomes of MH care



AGE-ADJUSTED COVID-19 DEATHS

PER 100,000 AMERICANS THROUGH AUG 18, 2020

COVID Tracking Project. 2020

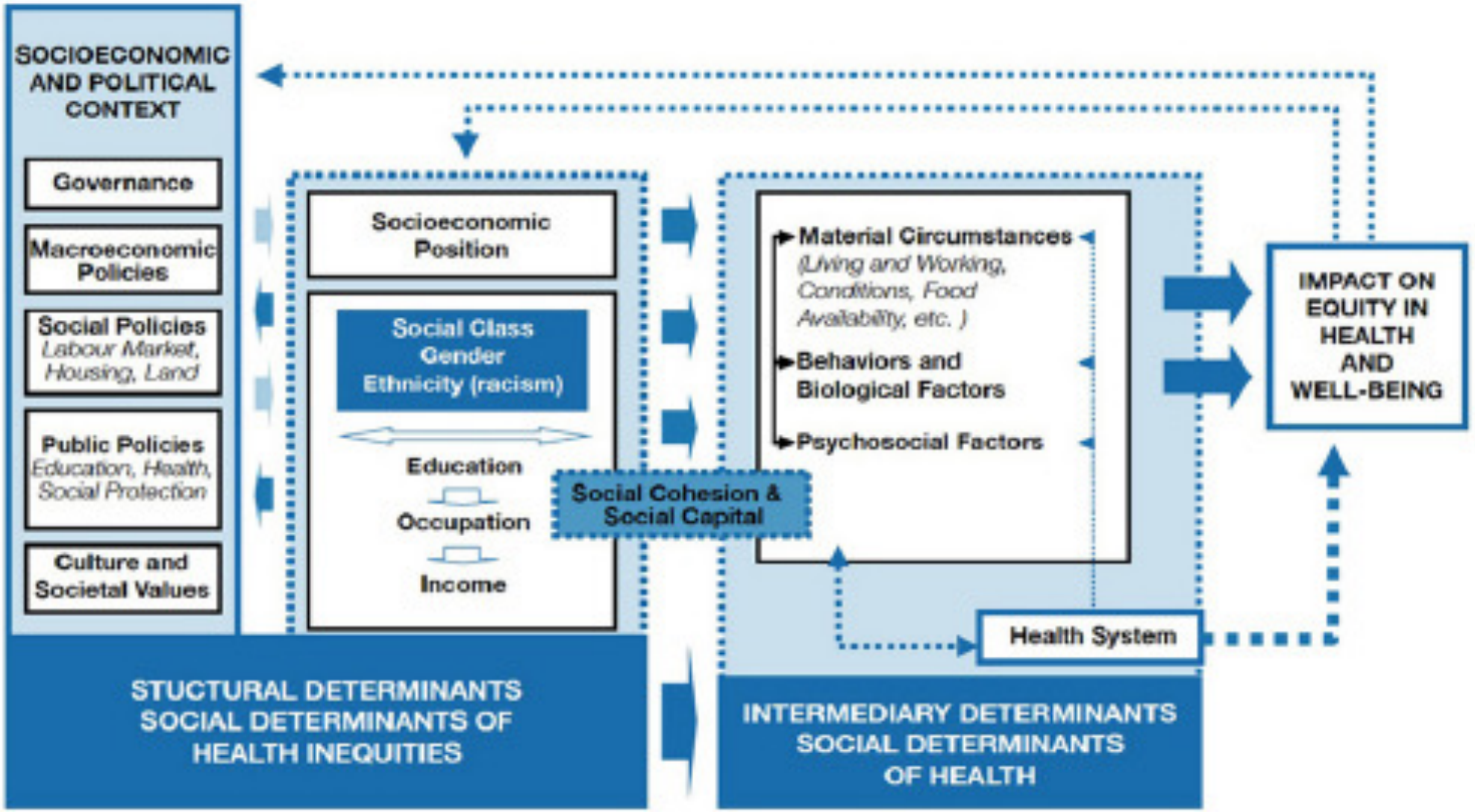
Outline

- Conceptual basis of disparities
- Promising topics for research on disparities in MH:
  I. Risk
  II. Assessment
  III. Service access & delivery

Health disparities are preventable and unjust differences in health status, outcomes, and burden of disease that adversely affect socially disadvantaged populations

CDC 2020; NIMH 2020; SAMHSA 2020

Multi-Level Causes & Pathways of Disparities



WHO 2010

Disparities in MH & MH Care Continuum

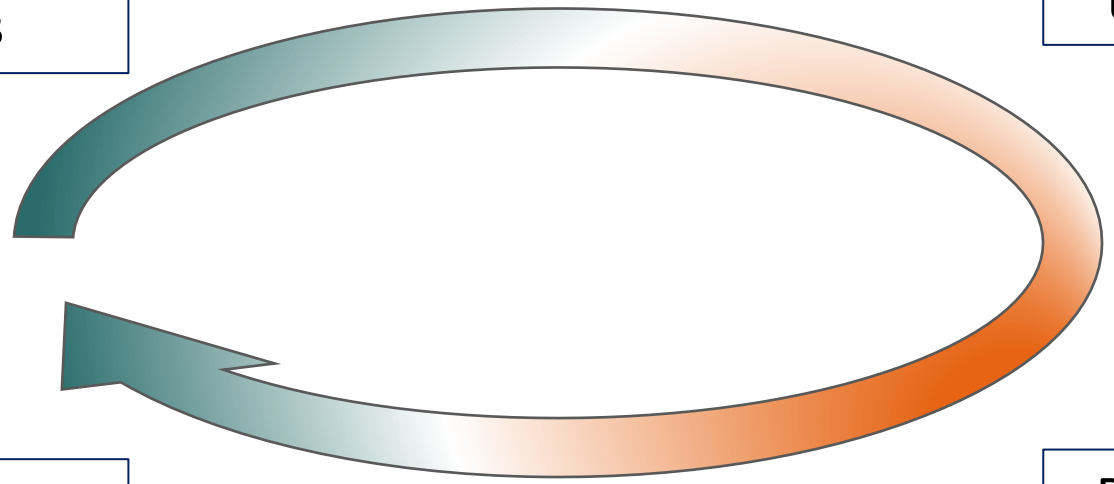
Black, Indigenous and People of Color (BIPOC) individuals…

More **persistent, severe, impairing disorders**

32-65% less **access** to care

20-40% less likely to **initiate** care

Risk of psychopathology



MH service access, use & outcomes

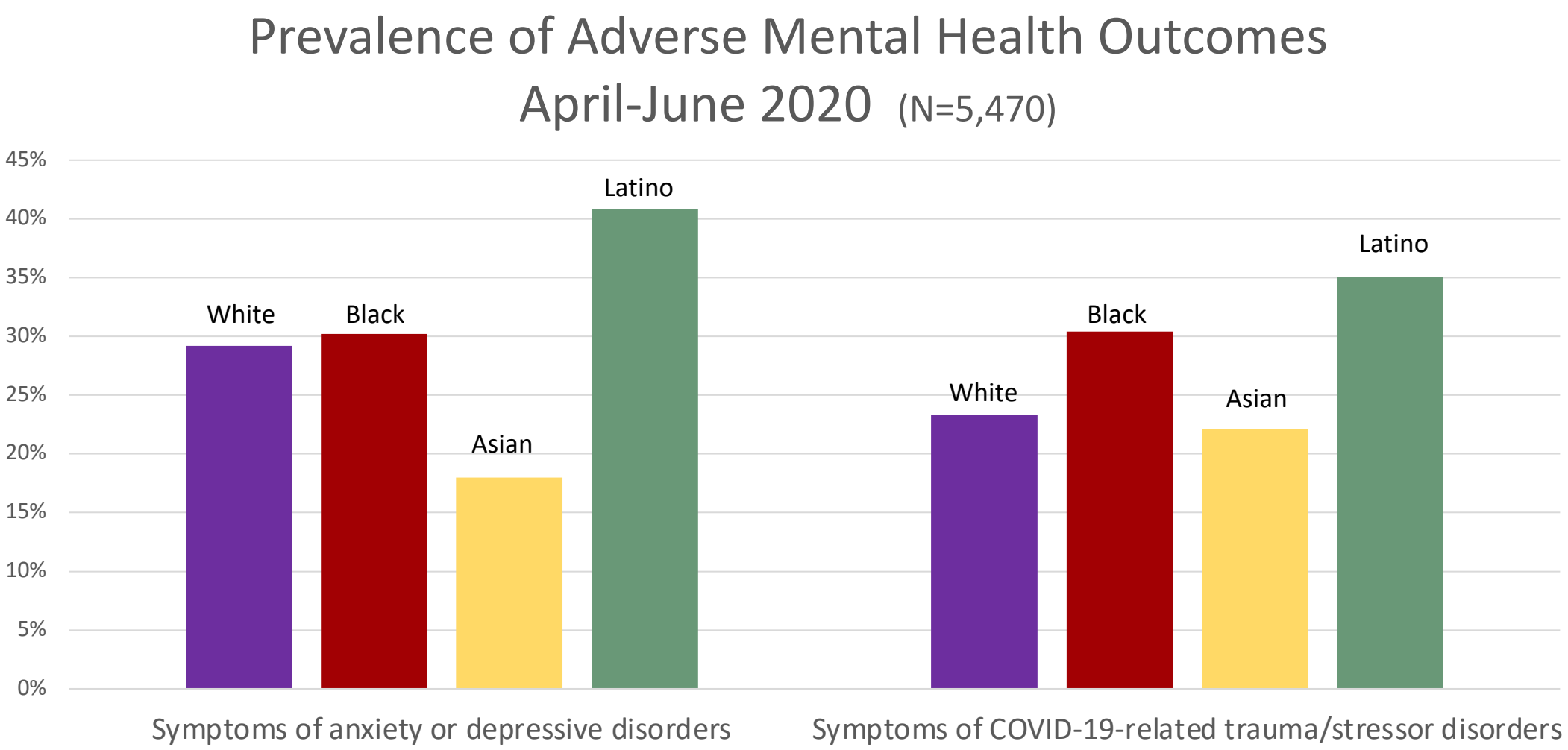
40-80% more likely to **end** treatment

40-60% less likely to fill **prescriptions**

Receive 30–40% poorer **quality** care

AHRQ 2019; Aggarwal et al., 2016; SAMHSA, 2018; US Office of Minority Health 2018; Vilsaint et al. 2019

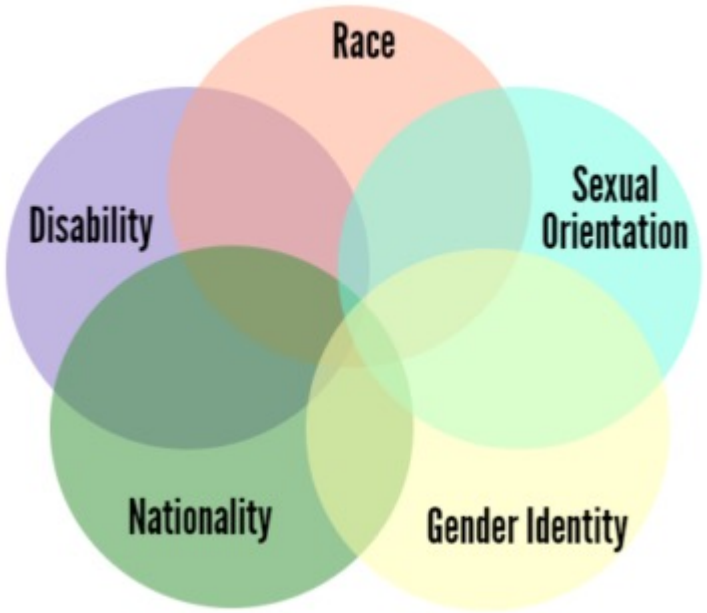
Complex Ethnoracial Disparity Patterns



CDC 2020

Research Areas

Mental Health Risk



Intersectionality

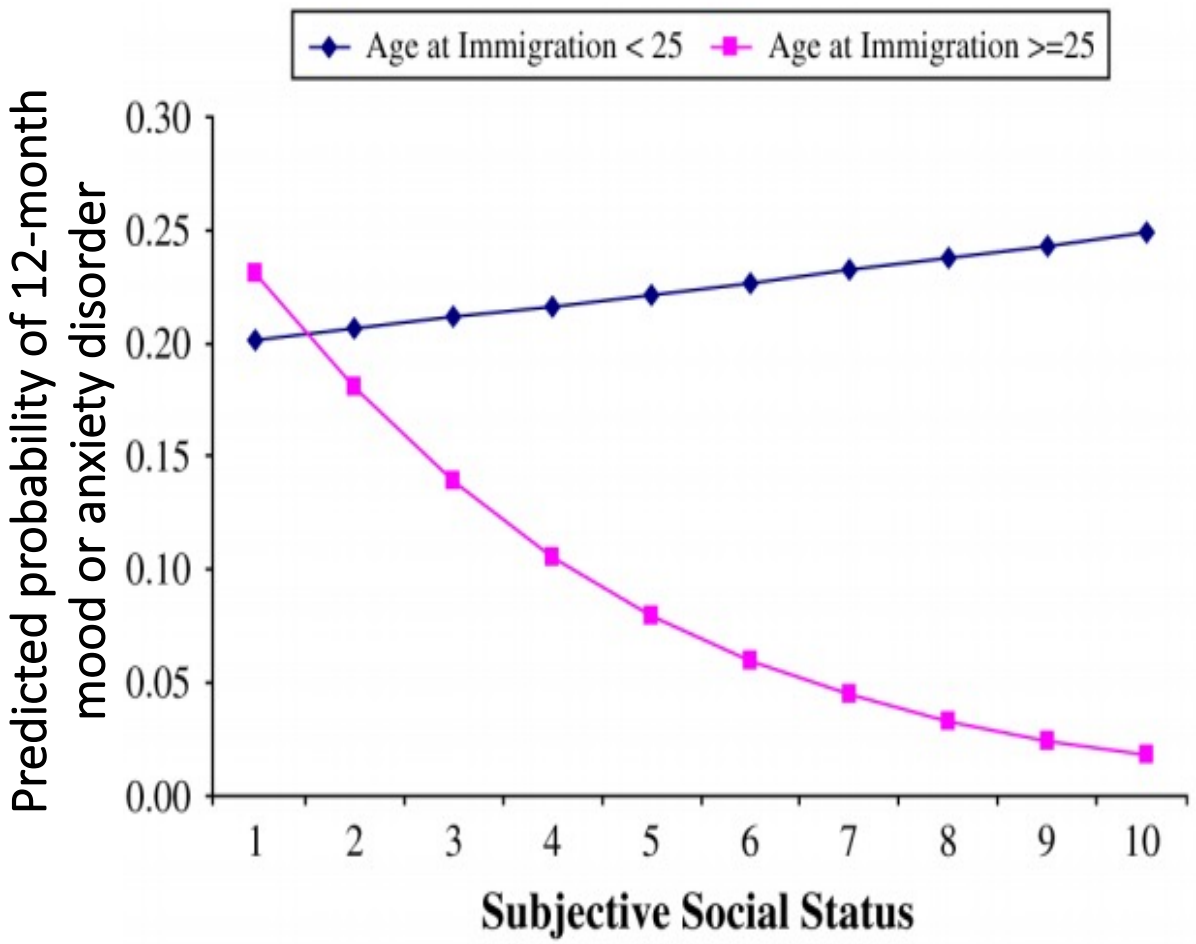
Subjective appraisal

Societal structure

Intersectionality

- Simultaneous impact of multiple aspects of identity & social position
- Emergent effects
- Compounds & modifies risk/protective factors
- Helps explain intra- and inter-group disparities

Asian immigrant sample of NLAAS (N=1,451)



Crenshaw 1989; Howard & Renfrow, 2014; Leu et al. 2008; Smedley & Myers 2014

Methods to Examine Intersectionality

- Regressions – Interactions, group stratification, intersection terms
- Trajectories & critical periods over the life course
- Network analysis
- Typologies derived from latent class models
- Decomposition analysis

Alegría et al., 2017; Bauer et al. 2021; Gee et al. 2012; Goodwin et al. 2017; Hargrove et al. 2020; Jackson et al. 2017; Leu et al. 2008; McNally 2018; Richardson & Brown 2016

Subjective Appraisal

- Person's own interpretation of experience affecting how they respond
- Modify impact of objectively assessed stressors

- Helps explain intra- & inter-ethnoracial group variability in association between objective measures of adversity and MH disparities

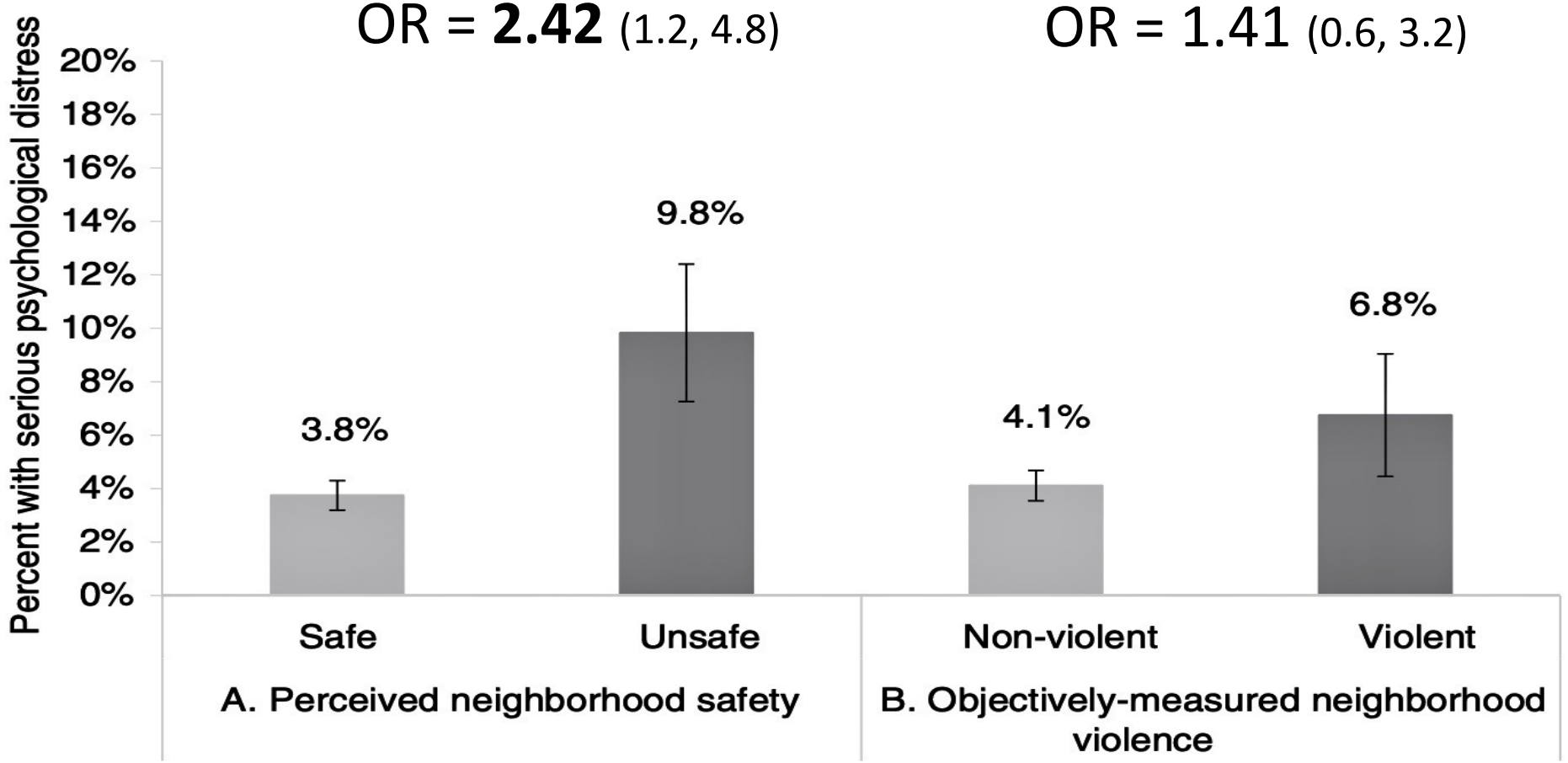
Gusler et al. 2021; Lazarus & Folkman 1984; Scott et al. 2018

Subjective Appraisal vs. Objectivity

OR = **2.42** (1.2, 4.8)

OR = 1.41 (0.6, 3.2)

K6 ≥13



CHIS

N=4,462 adolescents

Goldman-Mellor et al. 2016

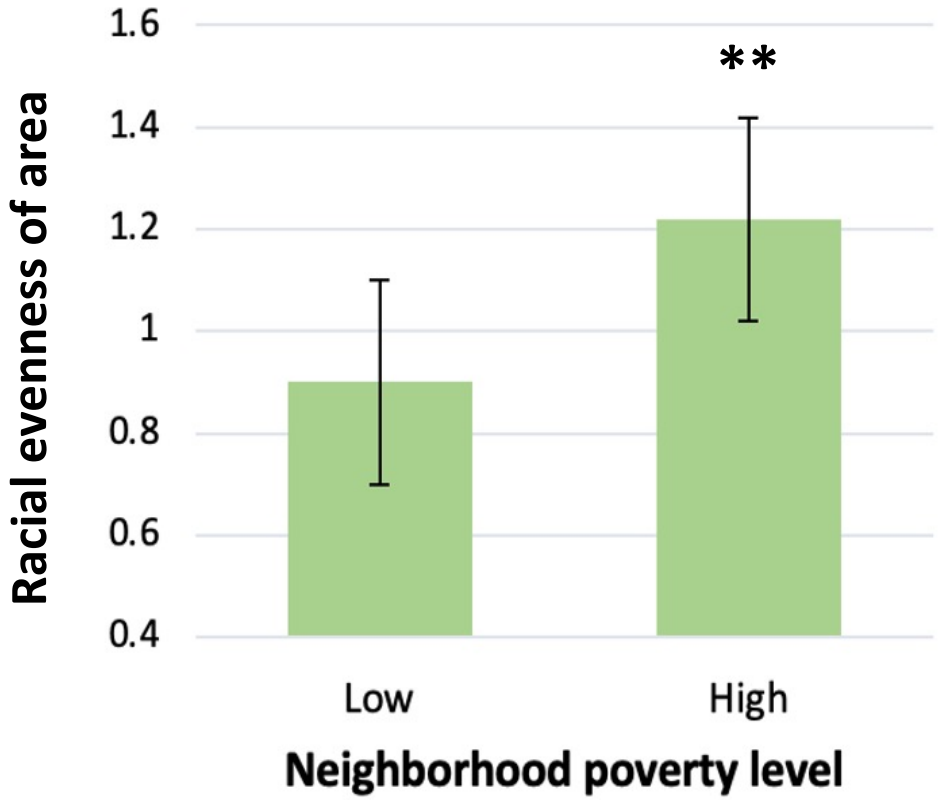
Societal Structure

- Ways societies are organized
  - Foundational social forces (e.g., laws)
  - Built environment (e.g., transportation)
  - Social environment (e.g., social contact)
- Key role of structural racism
  - E.g., racialized residential segregation
- Helps explain impact of social position on intra- & inter-group disparities

Alegría et al. 2014; Brown et al. 2021; Merton 1949; Metzl & Hansen 2014; Scott et al. 2018; Williams 2001

Racialized Residential Segregation

Probability of serious psychological distress



N=16,461 Blacks

K6 ≥ 13

NHIS

*p<.05

Do et al. 2019

Understanding Mechanisms of Disparities in Risk

- Longitudinal multi-level examinations in diverse populations
- Need population-level designs and tailored approaches
- Expand beyond symptoms to examine disorders
- Innovative methods to examine intersectionality
- Examine intergenerational effects

Alegria et al. 2017; Guidi et al. 2020; Williams 2018

Research Areas

Mental Health Assessment

Person-centered contextual assessment

Communication and implicit bias

Person-Centered Contextual Assessment

- Includes a person's wants, needs, abilities & circumstances
- From perspective of person & significant others
- Obtains information on intersectionality, appraisal & societal structure
- Complements generic assessment in research and clinical work

Aggarwal et al. 2019; DeSilva et al. 2018; Kirmayer & Ramstead 2017; Lewis-Fernández et al. 2016

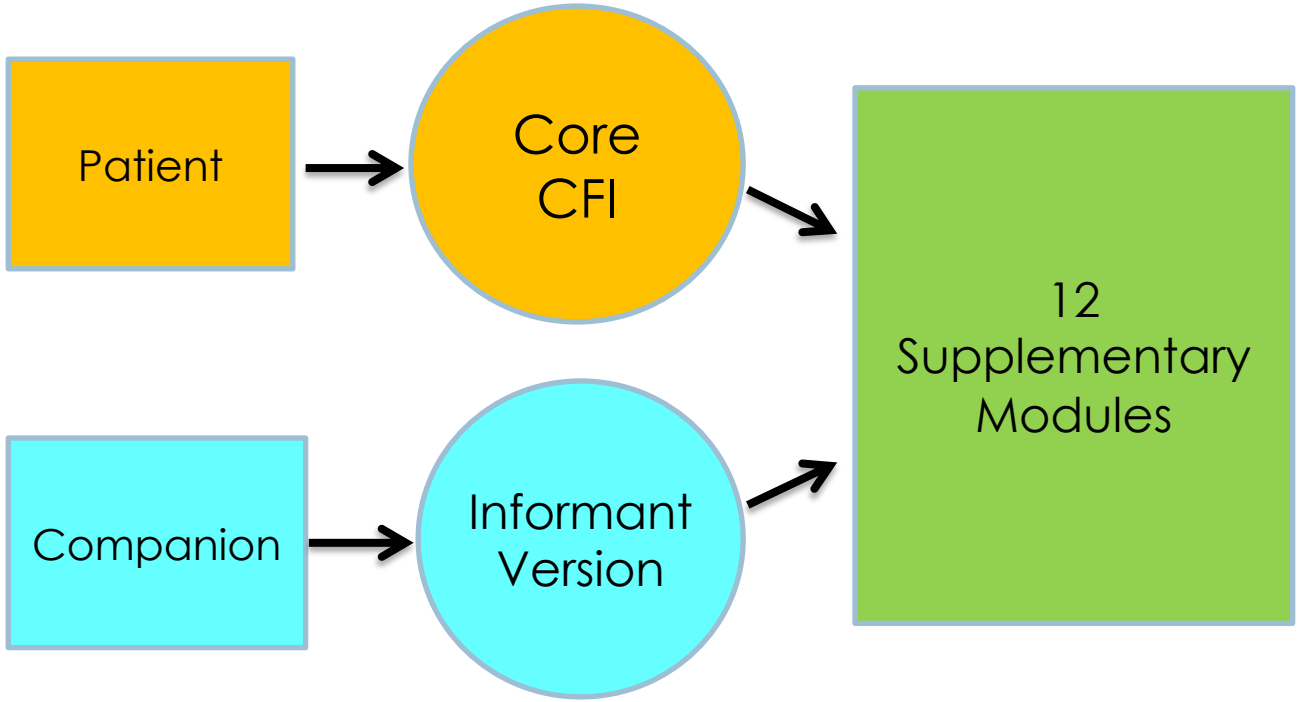
Complements Usual Assessment Formats

Generic	Person-centered
Intersectionality • Demographic indicators	**Intersectionality** • Most relevant aspects of own identity
Appraisal • Symptom experience	**Appraisal** • Most troubling aspects of problem • Own experiences of discrimination
Structure • Living arrangements • Food insecurity	**Structure** • Perceived barriers to care • Scared to walk in neighborhood

Aggarwal et al. 2020; Bourgois et al. 2017; Lewis-Fernández et al. 2016; NIH PhenX Toolkit

DSM-5 Cultural Formulation Interview

- Sociocultural assessment for evaluation & treatment planning
- Based on Cultural Formulation framework
- Three components:



Aggarwal et al. 2020; Lewis-Fernández et al. 2016, 2017;

Cultural Formulation Interview Domains

1. CULTURAL DEFINITION OF PROBLEM

A. Person's definition of problem

2. CULTURAL PERCEPTIONS OF CAUSE, CONTEXT, AND SUPPORT

B. Causes
C. Stressors and supports
D. Role of cultural identity

3. CULTURAL FACTORS AFFECTING COPING AND HELP SEEKING

E. Self-coping
F. Past help-seeking
G. Barriers to help-seeking

4. CURRENT HELP SEEKING

H. Preferences
I. Clinician-patient relationship

APA 2013; Lewis-Fernández et al. 2016

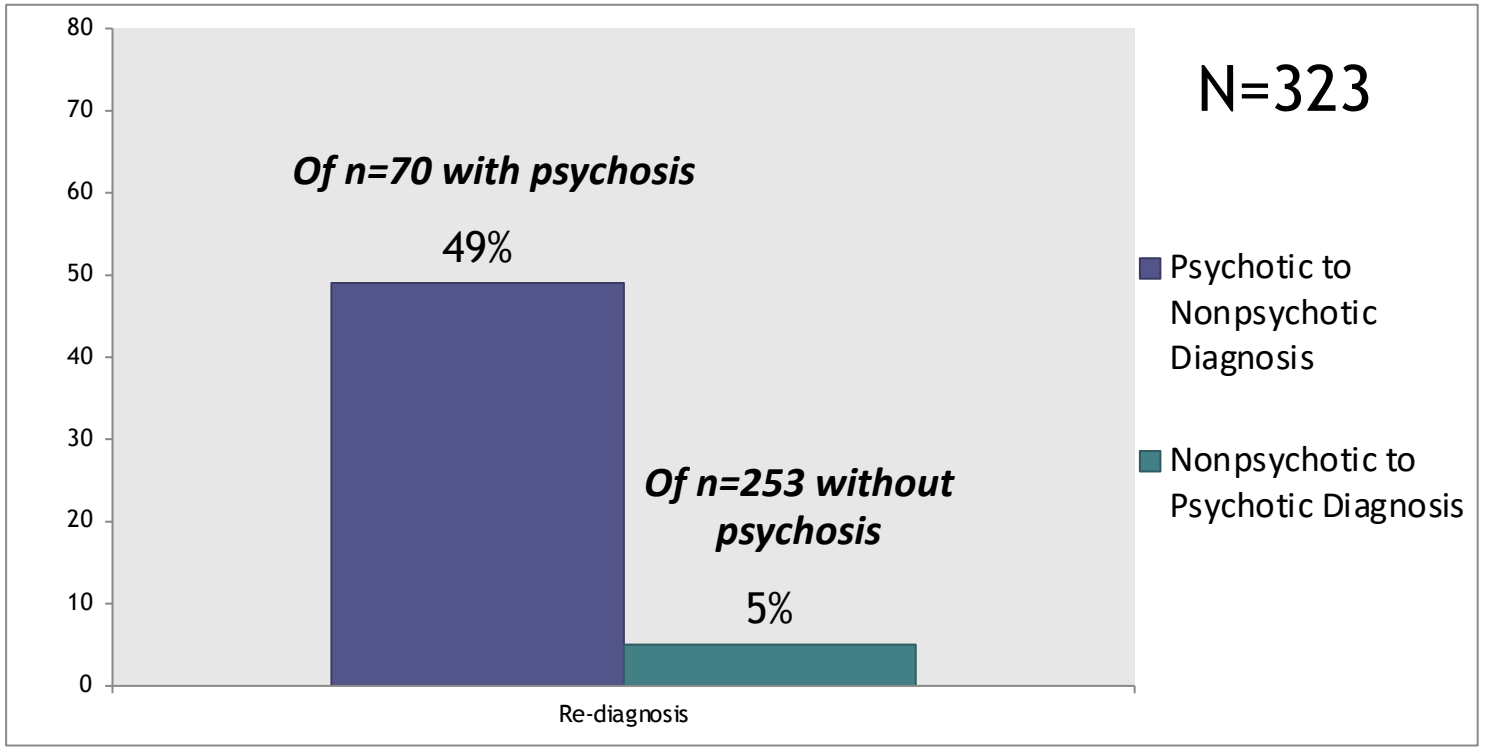
Research on CFI

- DSM-5 Field Trial found CFI:
  - Feasible, acceptable & useful
  - Enhanced rapport, communication & expressions of caring
- CFI advances cultural competence of psychiatric trainees

Aggarwal et al. 2020; Adeponle et al. 2012; Diaz et al. 2016; Mills et al. 2017; Padilla et al. 2016; Paralikar et al. 2019

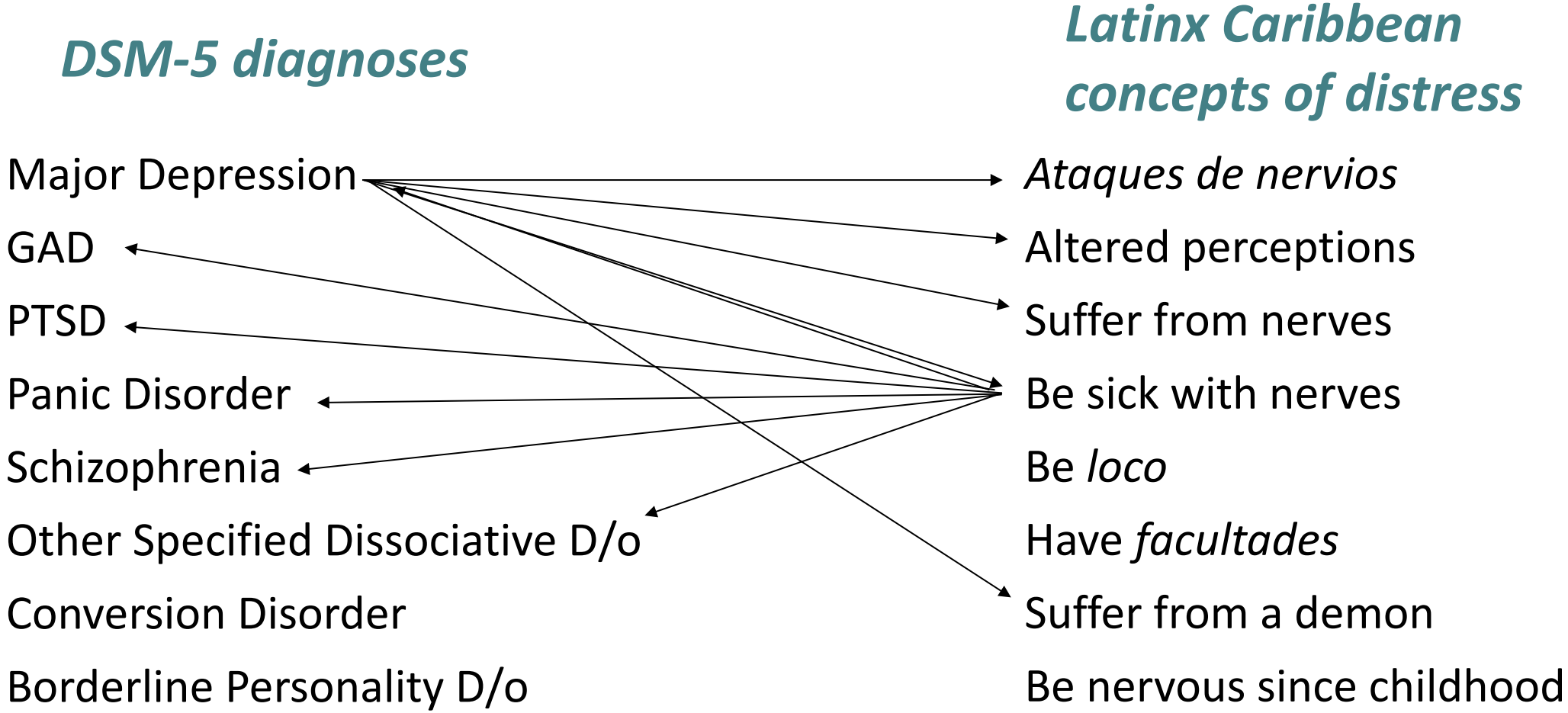
Research on Cultural Formulation

- Improves accuracy & completeness of diagnostic evaluation



Adeponle et al. 2012; Zandi et al. 2008, 2010, 2011

Variation in Experience of Distress



APA (DSM-5-TR) in press; Alegría & McGuire 2003; Lewis-Fernández & Kirmayer 2019

Poor Communication & Implicit Bias

- Affect clinicians seeing BIPOC patients
- Associated with lower quality of care & patient disengagement
- May respond to intervention

Implicit Association Test

Aggarwal et al., 2016; FitzGerald et al. 2019; Maina et al. 2018; Merino et al. 2018; Zolnierek & DiMatteo 2010

Future Directions for MH Research

Understanding & Eliminating Disparities in Assessment

- Association btw implicit bias, observed clinician behavior & patient outcomes
- Impact of sociocultural assessment on longitudinal patient outcomes
- Best implementation strategies in routine care
- Longitudinal effects of clinician training
- Test alternative approaches for improving clinician behavior

Aggarwal et al. 2020; Bazemore et al 2015; FitzGerald et al. 2019

Research Areas

Disparity-Reduction Strategies in MH Services

1. Engaging with Communities
2. Tailoring for a Specific Subgroup
3. Leveraging Technology to Reduce Disparities
4. Improving Patient-Provider Communication
5. Intervening on Social Inequities

Engaging with Communities

- **1º targets:** intersectionality, appraisal, structure, &/or communication/bias
- **Approaches:**
  - Be aware of multiple forces at all levels
  - Invest in community participation
  - Prioritize community MH & social outcomes
- Key areas:

Multi-sector collaborative care
Early psychosis interventions
School-based interventions
Homeless services
Criminal justice
Global mental health
MH promotion & secondary prevention

Anderson et al. 2015; Brown et al. 2019; Castillo et al. 2019; Wells/Jones et al. 2013

Community Partners in Care

- **Problem:** limited access to MDD care in low-income communities
- Multi-sectoral coalition-building to ↑ use of collaborative care services
- Coalition co-led, implemented, monitored MDD services
- RCT vs. program-level implementation of toolkit & technical assistance
  - 95 programs, N=1018 (predominantly BIPOC and low income)
  - At 6 months: improved clinically & community-defined outcomes
  - At 4 years:

Indicator CEP vs. RS	OR
≥3 chronic medical conditions	**0.46**
Clinical remission	**1.73**
Community-defined remission	**2.43**

Arevian et al. 2019; Wells/Jones et al. 2013

Tailoring for a Specific Subgroup

- **1º target:** intersectionality
- **Approach:** tailoring services for a specific community subgroup
- Typically organized around aspects of identity or structural position
  - E.g., faith-based, schools, criminal justice system, homeless programs
- Leverage subgroup commonalities to address disparities

Hankerson et al. 2018; Joo & Liu 2020; Supplee et al. 2013; Torres-Ruiz et al. 2018

Church-Based MH Services

- **Problem:** Blacks w/MDD: 30-50% as likely as Whites to receive treatment
- Value of screening & referral services in faith-based settings
- Screening in 3 NYC churches (N=122)
  - 20% probable MDD (PHQ-9 ≥ 10)
  - But no participant accepted MH treatment referral
- Currently funded NIMH R01
  - Cluster-randomized clinical trial of SBIRT vs. Enhanced Usual Care
  - Church-based Community Health Workers (CHWs) are interventionists
  - Outcomes: Treatment engagement, quality of life, MDD symptoms
  - Mixed-methods process evaluation of screening/referral facilitators & barriers

Hankerson et al. 2012, 2015, 2018; Molock 2008

Leveraging Technology to Reduce Disparities

- **1º target:** structural barriers and appraisal
- **Approach:** facilitating remote access/engagement in services & self-help
- Modalities:
  - Telemental health: remote delivery of traditional MH services
  - Technology-mediated self-help: on-demand interactive applications / websites
  - Technological adjuncts: enhance interventions (e.g., reminders, virtual reality)
- Clinically effective & can reduce logistical barriers, stigma
- Digital divide

Aguilera et al. 2017; Mitchell et al. 2019; Ralston et al. 2019; Sarkar et al. 2016

Text Messaging to Increase CBT Engagement

- **Problem:** Poor BIPOC engagement in CBT, limiting effectiveness
- Automated text messaging to ↑ engagement/CBT effect in Latinx w/ MDD
- RCT of 16-session group CBT for MDD with/without text messaging adjunct

Engagement measure	Intervention N=45	Control (N=40)	p-value
Mean time in CBT (wks)	13.5	3	.03

- Self-rated mood via text:
  - Correlated significantly with PHQ-9
  - Significantly predicted next-day CBT session attendance

Aguilera et al. 2017; Bruehlman-Senecal et al. 2017

Improving Patient-Provider Communication

- **1º targets**: patient appraisal, clinician bias & dyadic communication
- **Approach:** enhancing communication content & context
  - Content: exchange of ideas about illness and treatment
  - Context**:** interpersonal/situational influences affecting this exchange
- Examples of patient concerns:

Content

- MH services not useful or inappropriate
- Stigma

Context

- Discordant communication styles
- Discomfort discussing emotions w/ strangers

Aggarwal et al. 2016

DECIDE

- **Problem:** Poor participatory nature of BIPOC MH txt → poor care/outcomes
- Training to enhance patient activation & shared decision making
  - Patient: 3 coaching sessions to identify own priorities & ask questions of clinician
  - Clinician: workshop + up to 6 coaching calls to address patient's questions

Patient + clinician coaching

4-arm RCT, N=312 patients, 74 clinicians

Outcome	Cohen's *d*	p-value
Any clinician coaching on blinded-coder shared decision making	**0.29**	<0.05
Maximal clinician coaching on blinded-coder SDM	**0.78**	0.001
Maximal patient + clinician coaching on patient quality of care	**0.62**	<0.05

Alegría et al. 2008, 2014, 2018

Intervening on Social Inequities

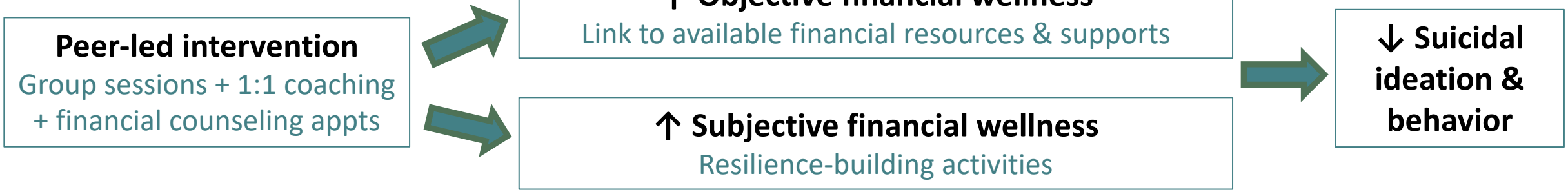
- **1º target:** structural factors
- **Approach:** connect person to resources
  - E.g., access to housing, education, employment, financial resources, insurance
- Partner with stakeholders to identify best intervention targets
- Assess mechanisms & process factors
- Include longitudinal evaluation & sustainability

Brown et al. 2019; Shim et al. 2014; Thornton et al. 2016

From Hardship to Hope

- **Problem:** High objective financial hardship in BIPOC & → suicide-related outcomes
  Elevated suicidal ideation & attempts in some BIPOC groups
- Financial empowerment intervention to ↓ suicidal ideation & behavior
- Addresses suicide risk by targeting non-clinical economic determinants

Mechanisms of action in pilot trial



Elbogen et al. 2020; Jiménez-Solomon et al. 2016

Future Directions

Understanding & Eliminating Disparities in Service Access & Delivery

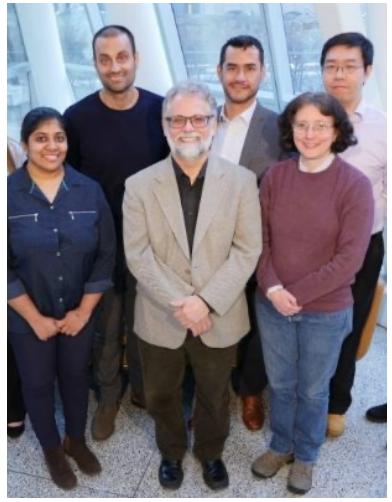
- Research on implementation strategies to:
  - Reconcile community & academic views of 1º targets for intervention
  - Identify optimal partnership structures for multi-sector collaboration
  - Address diversity of risk within population-wide interventions
  - Assemble parsimonious but multi-level intervention packages
  - Balance scalability & effectiveness in early intervention designs

Agurs-Collins et al. 2019; Brown et al. 2019; Castillo et al. 2019

Conclusions

- Causes & pathways of ethnoracial disparities are complex
  - Affected by intersectionality, appraisal, societal structure & communication/bias
- Need research designs in partnership with communities that:
  - Are longitudinal, multi-level, and multi-sectoral
  - Target community + individual and objective + subjective factors
- Tailor interventions & implementation strategies to specific contexts
  - Assess mechanisms & processes to guide replicability & sustainability
- Implement what is known, fill knowledge gaps & iteratively reassess

Acknowledgments



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