Digital Interventions for Racial-Ethnic Minoritized Youth

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Disclosures

No conflict of interests to disclose.

AGENDA

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Program of Research
Sociocultural Risk and Protective Factors:
Research, Practice, & Action

Digital Interventions for Racial-Ethnic Minoritized Youth: Risk, Resilience, and mHealth Technology

Future Directions
What's Next in Digital Mental Health Research?

Conclusion
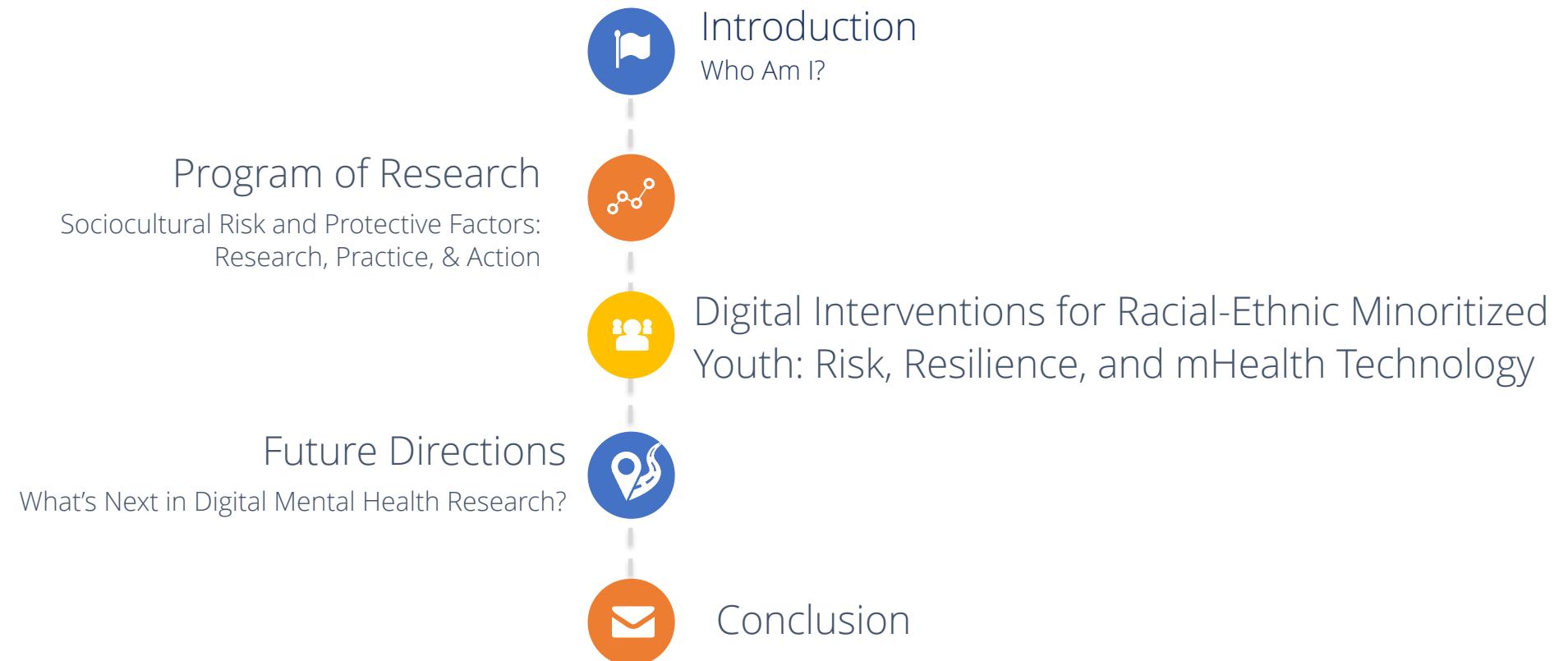
The Cultural Resilience, Equity, and Technology (CREATE) Lab at UMD College Park

Sociocultural Risk and Protective Factors: Research, Practice, & Action

Program of Research

Interdisciplinary Approach to Race and Racism Work

1 Clinical

- Identify cultural factors
- Improve assessments & treatments
- Create interventions

2 Developmental

- Transition from adolescence to adulthood
- Explore novel processes

3 Public Health & Well-Being

- Evaluate & Influence
- Community-based approaches
- mHealth

Digital Interventions for Racial-Ethnic Minoritized Youth: Risk, Resilience, and mHealth Technology

Digital Interventions: mHealth

- Mobile health (mHealth) is the use of mobile devices and technologies for medical and public health practices.

  - Preventative services, disease surveillance, treatment support, epidemic outbreak tracking and chronic disease management

  - 36% to 53% of Americans between 2016 and 2018 used mHealth apps for these various purposes. Millennials were most likely to use these apps.

- Popular in underserved areas (rural, low-income, etc.)

  - As of 2017, there were 325,000 mHealth apps available for download from app stores,

Effectiveness of mHealth technology

- Reduction of Maladaptive Symptoms (Donker et al., 2013)

- Promotion of Better Well-Being (Lane et al., 2011)

- Culturally-Adapted mHealth can be effective (Murry et al., 2018)

Gaps in the Literature

1

Youth of color are underrepresented in mHealth research

2

Youth of color are less likely to have access to mental health treatments

3

Current mHealth do not consider how sociocultural factors influence mental health and perceptions of treatment

Goals

1
Highlight existing disparities in access to mental healthcare

2
Discuss the importance of targeting sociocultural risk and protective factors in digital interventions

3
Discuss current research on developing culturally-adapted digital interventions

4
Present future directions for developing culturally-adapted digital interventions

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Why mHealth?: Disparities in Access to Traditional Mental Healthcare

- Rates of utilization of traditional services (Rodgers et al., 2022)
  - The influence of racism and poverty (Castro-Ramirez et al., 2021)
  - Lack of mental health providers (Roulston et al., 2023)
  - Rising rates of suicide among Black youth compared to other racial-ethnic groups (Ring the Alarm Report)

"Doors are open for white people."

African American youth perceived that they were at a disadvantage when seeking mental health services as compared to their White peers:

- Differences in access
- Reduced stigma
- Increased social support

Willis & Neblett, 2023, *mHealth*

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Systemic barriers prevent the utilization of mental health services:

- Lack of finances
- Lack of availability
- Few therapists of color

Willis & Neblett, 2023, *mHealth*
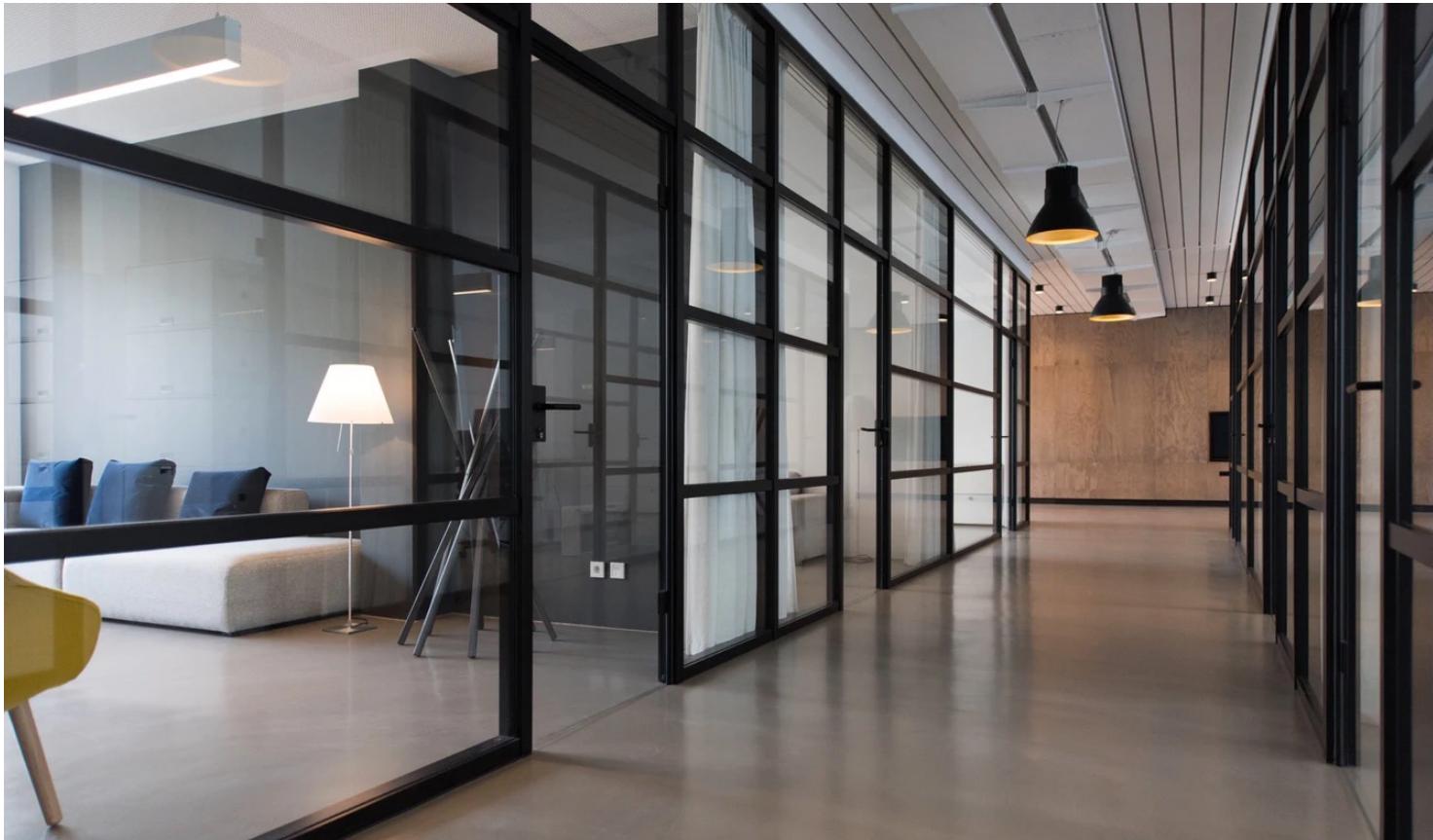
"The only Black person I saw was the receptionist".

Attitudinal Barriers to Mental Health Treatments

- Need for Treatment (Villatoro et al., 2017; Narendorf, 2018)

- Cultural Mistrust (Thompson et al., 2004; Castro-Ramirez et al., 2021)

- Stigma (DeFreitas et al., 2018)
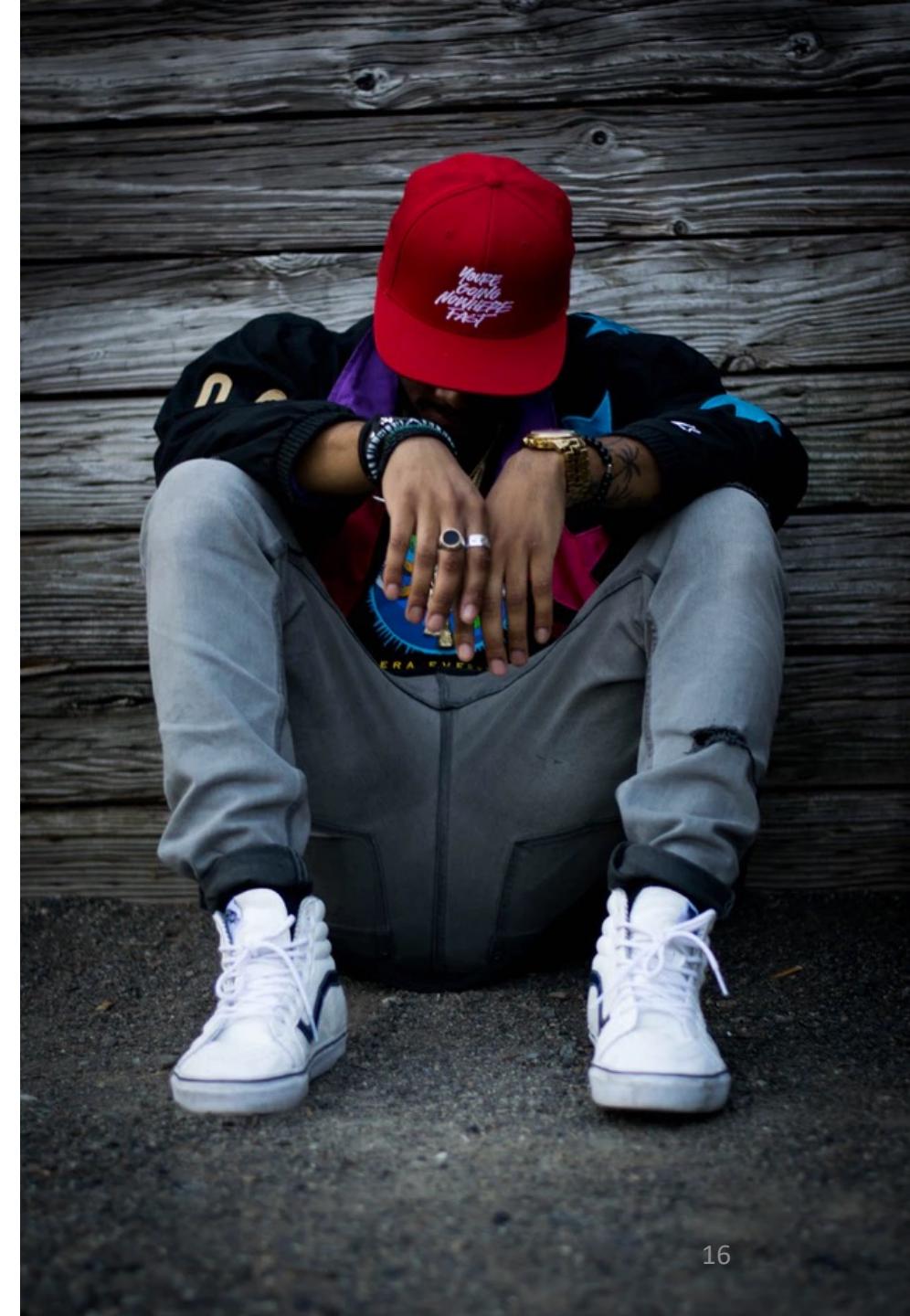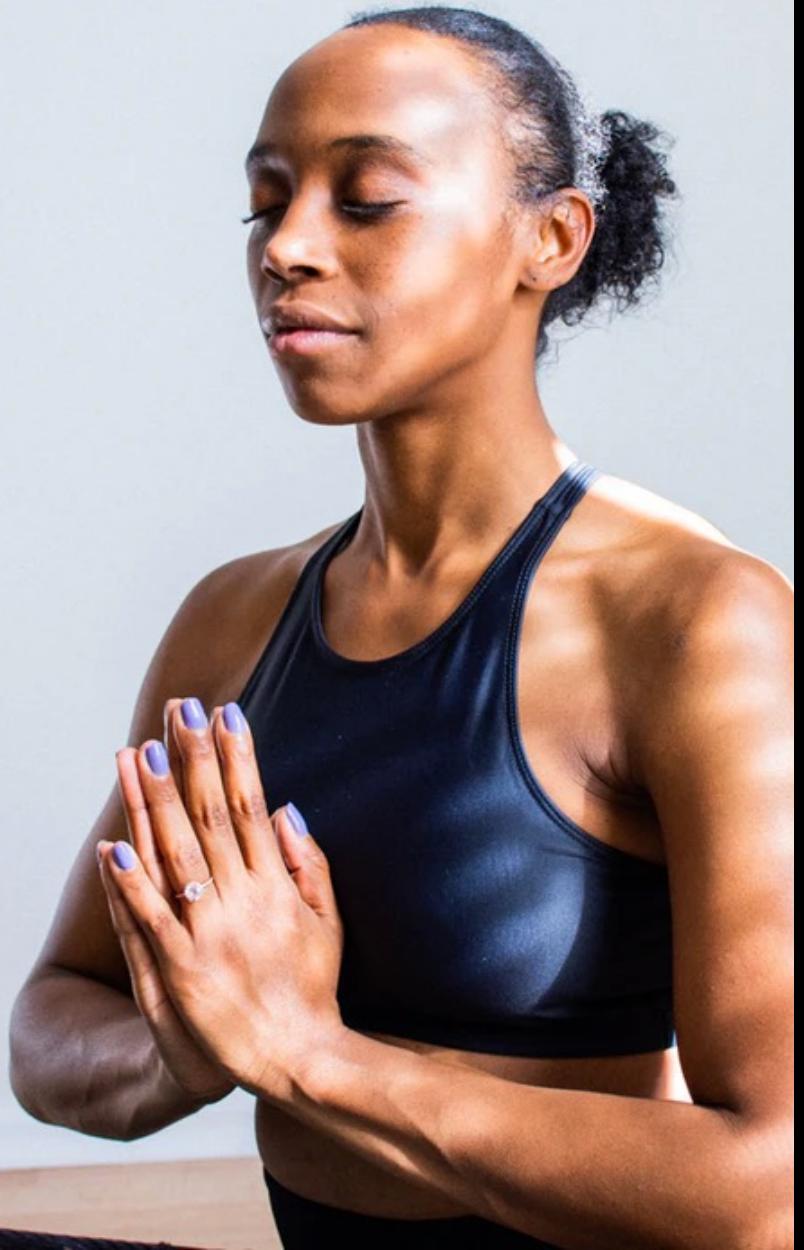
"Drink tea and pray"

A variety of culturally specific barriers prevent the utilization of mental health services:

- Stigma
- Lack of awareness/need
- Misunderstanding
- Generational differences
- Family socialization messages

Willis & Neblett, 2023, *mHealth*

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Racial Discrimination and Racial Identity

- Racial discrimination is a prevalent issue and impacts mental health. (Chou et al., 2012; Schmitt et al., 2014)

- Racial identity can protect against experiences of discrimination. (Brondolo et al., 2009; Willis & Neblett, 2018)

- Racial identity also promotes better psychological outcomes. (Rivas-Drake et al., 2014)

The Digital World and Race During Adolescence

- Black and Hispanic teens are more likely to say they are online constantly as compared to White and Asian teens. (Pew Research Center, 2022).

- Developmental theories of ethnic-racial identity development. (Cross & Cross, 2008; Sellers et al., 1997)

- Youth of color are exploring their race online, which has its own risks and rewards. (Tynes et al., 2004)

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ies observed by OIG on June 10, 2019,

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Online Racial Discrimination (ORD) and Exposure to Traumatic Events Online (TEO)

- The denigration or exclusion of an individual based on race using symbols, voice, video, images, text, and graphic representations (Tynes et al., 2012)

- Can be both individual and vicarious (Tynes et al., 2010)

- Repeated exposure to TEO has increased over the past few years (Tynes et al., 2019)

- Longitudinal, EMA studies have found that since 2020, Black youths' exposure to ORD has increased. (Del Toro & Wang, 2023)

- Black youth may also experience more online racial discrimination than Black adults. (Del Toro & Wang, 2023)

Profiles/patterns of ORD-TEO Exposure among Black and Latinx Youth

Willis, H., Maxie-Moreman, A., Houng, M., Polanco-Roman, L., & Tynes, B. (*under* review, presented at the Society for the Psychological Study of Social Issues 2022)

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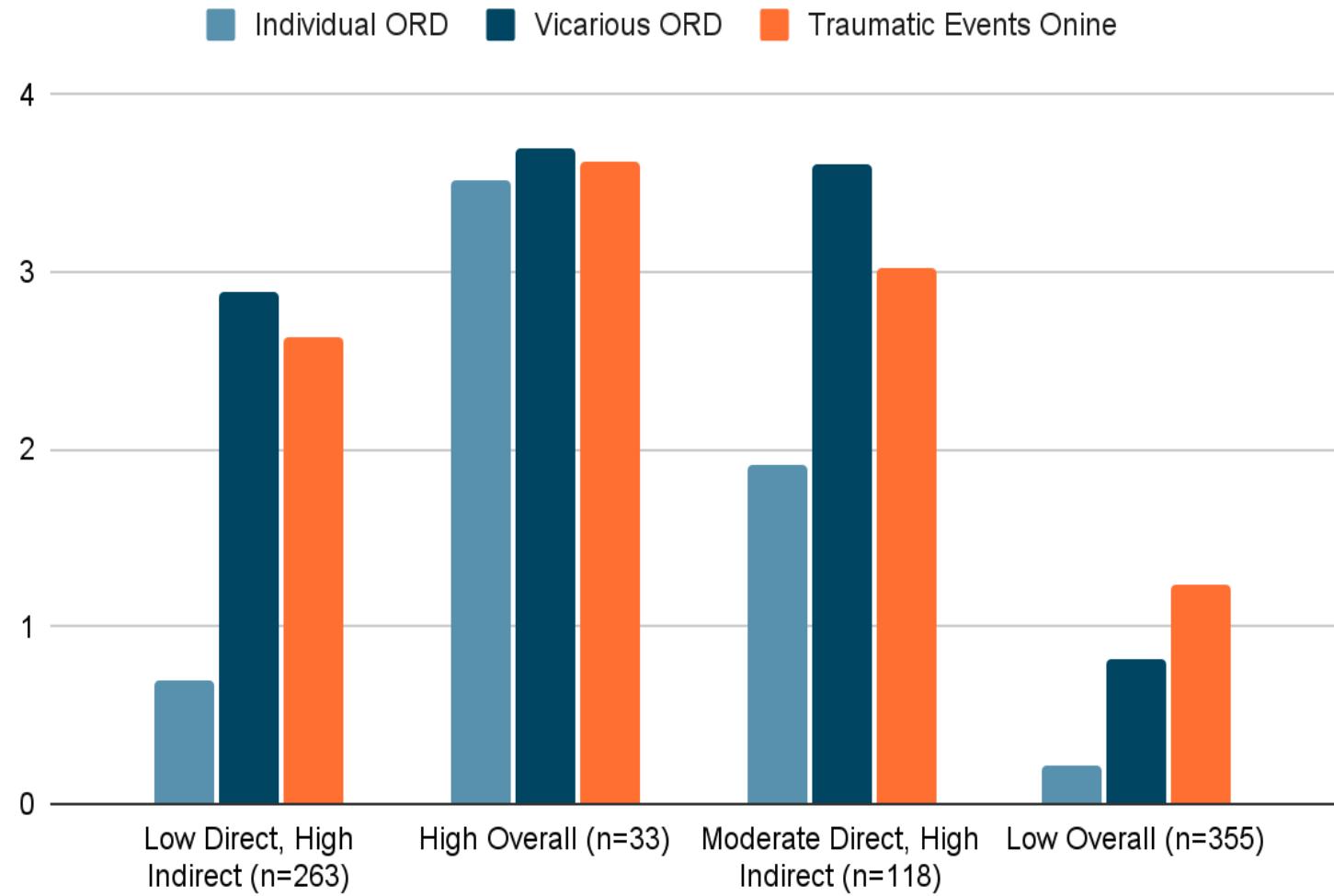
Online Racism and Psychosocial Adjustment for Black Youth

- Associated with anxiety, depression, PTSD, alcohol use, and suicidal ideation symptoms (e.g., Keum et al., 2022; Tynes et al., 2019; Tynes et al., 2021)

- Online + Offline/In-Person Racial Discrimination

- In one 2-week daily diary study, Black youth reported experiencing over 5000 instances of online and offline experiences and reported experiencing an average of over 5 racist encounters a day. (English et al., 2020)

Latent ORD-TEO Profiles & Posttraumatic Stress Symptoms among Black Teens (Willis et al., *under review)*
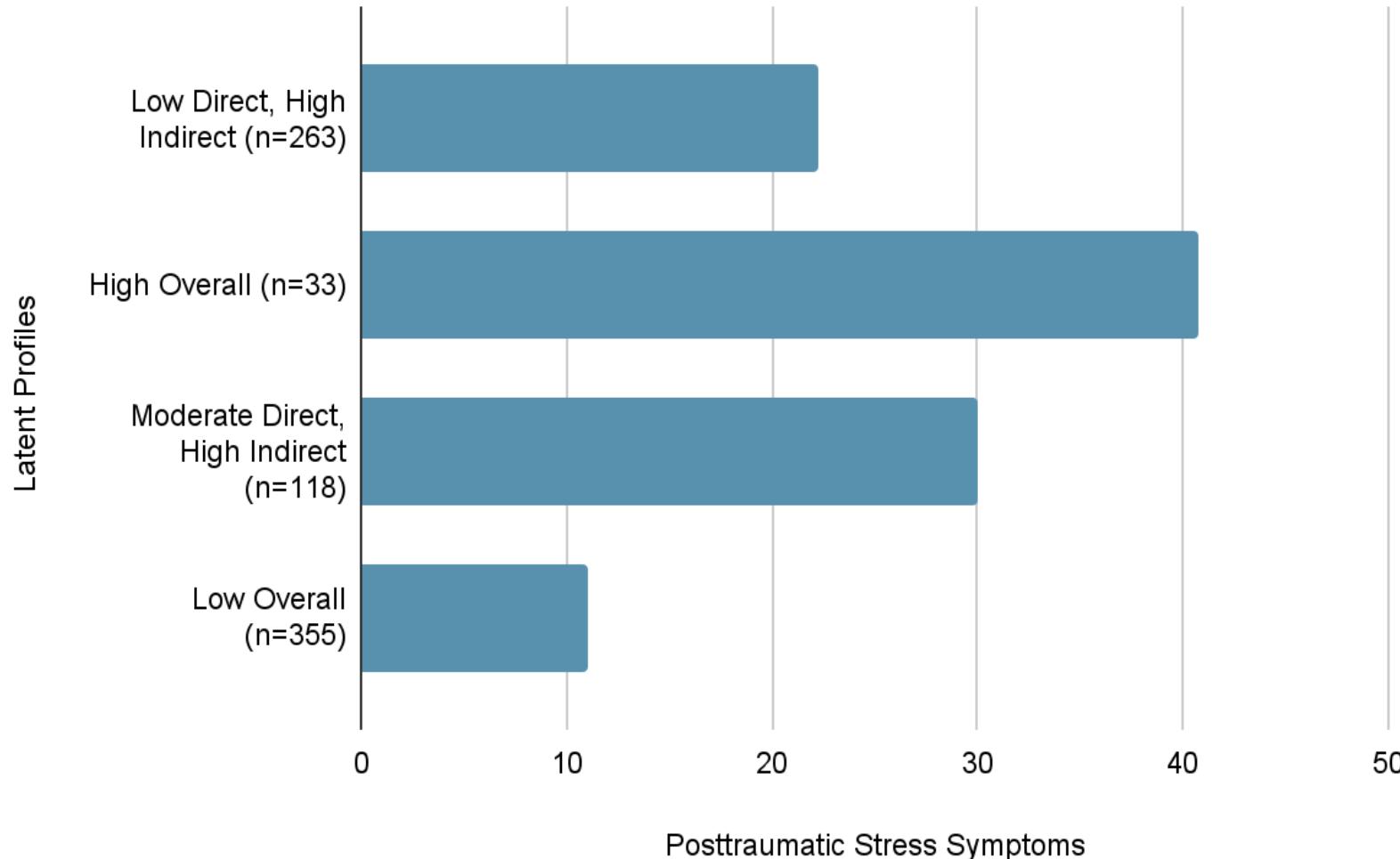
Background: Racial Identity Beliefs

- The significance and qualitative meaning that race has in the self-concepts of African Americans. (Sellers et al., 1998)

- May enhance youths' self-concepts and cognitive-appraising processes, as well as facilitate their development of adaptive coping styles. (Neblett et al., 2012)

Protective & Promotive Function of Racial Identity

- Protective (i.e., can buffer against high levels of stress) and promotive (i.e., predict better outcomes at varying levels of risk and stress) effects (Masten, Cutuli, Herbers, & Reed, 2009)
  - Centrality both protects against discrimination and associated with better psychological well-being (e.g., Lee & Ahn, 2013; Sellers et al., 2003)
  - Private regard associated with lower levels of psychological distress (i.e., Hurd et al., 2013)

ORD and Race-Based Traumatic Stress Symptoms among Youth of Color (Willis, Polanco-Roman, & Galan, in prep, presented at the 2024 SRA Biennial Meeting)

- The relationship between vicarious ORD and race-based traumatic stress symptoms was significant and positive for those with low ethnic identity commitment, and nonsignificant for those with average and high levels of ethnic identity commitment.

- Those with average and high levels of ethnic identity commitment reported fewer race-based traumatic symptoms at high levels of vicarious ORD exposure compared to those with low REI commitment.

MLR 2-Way Interaction Plot

Youth RaBTS Symptoms vs Vicarious ORD

- Low MEIM Commitment
- Average MEIM Commitment
- High MEIM Commitment
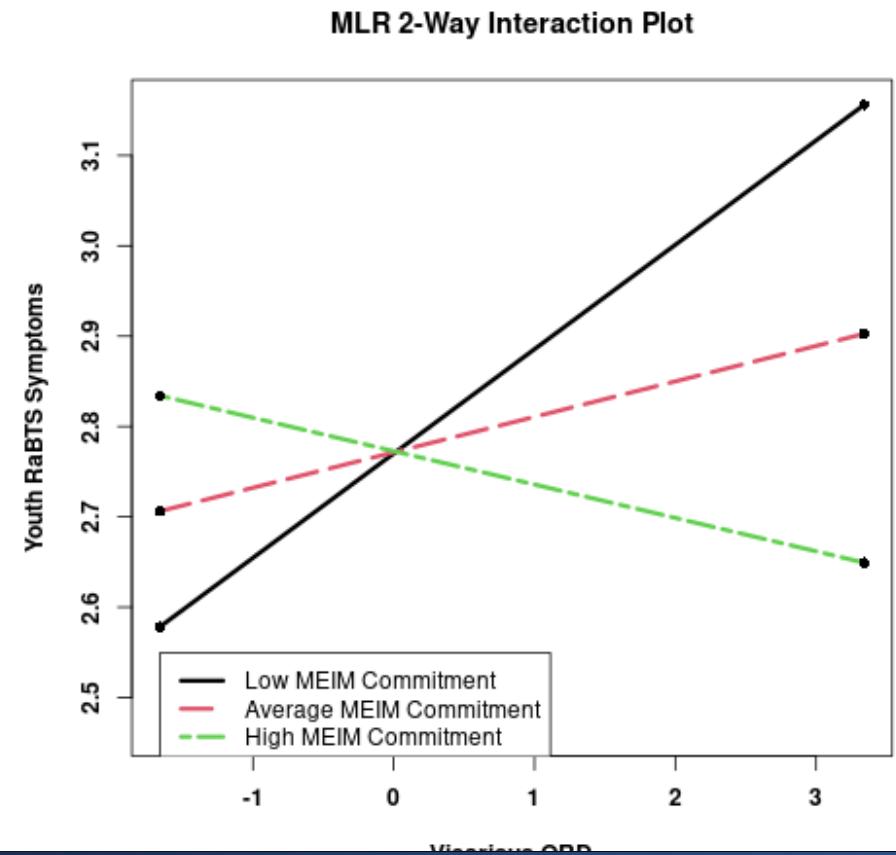
"Being Black is lit."

Culturally specific protective factors contribute to the psychological well-being of African American young adults:

- Feelings of resiliency
- Accomplishments
- Social support from African American peers or organizations

Willis & Neblett, 2023, *mHealth*

Discussion

- Various forms of online racism are associated with a variety of negative mental health outcomes for Black youth; indirect forms may be more frequent.

- Positive racial-ethnic identity beliefs may buffer these experiences (Lee & Ahn, 2013; Neblett et al., 2012)

- Implications for designing culturally-adapted digital interventions and mHealth:
  - Interventions for youth of color should target both offline and online experiences of racism
  - Bolstering racial identity beliefs may lead to better psychosocial outcomes.

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Willis, H.A. & Neblett, E.W., Jr. (2023). **Developing Culturally-Adapted Mobile Mental Health Interventions: A Mixed Methods Approach**. *mHealth*.

The Evaluation of Current mHealth Interventions (Willis & Neblett, 2023)

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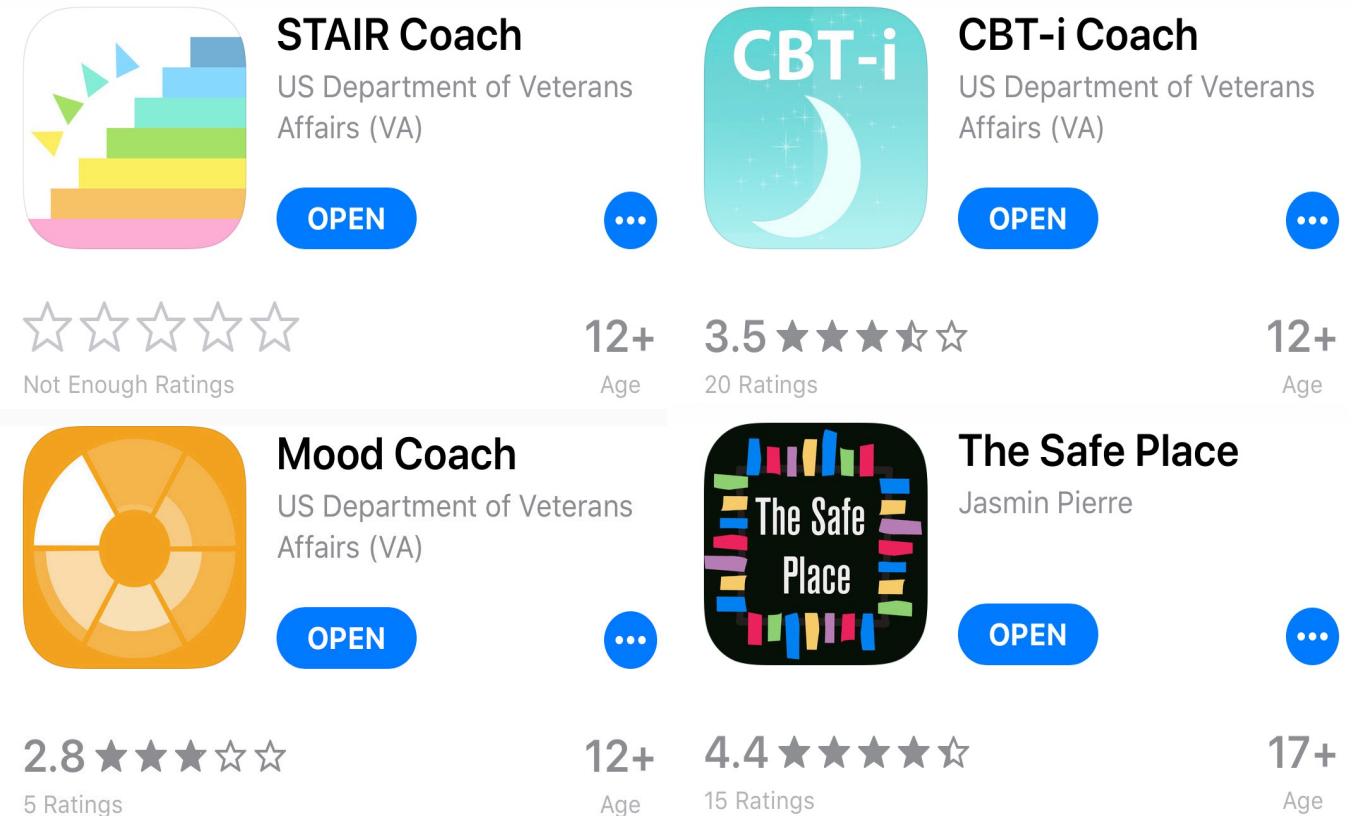
Acceptability of Current mHealth Interventions (Willis & Neblett, 2023; *mHealth)*

Though African American youth described some positive aspects of current mHealth interventions for mental health, none of the most popular, free, apps fully met the current needs of this group.

Positive Qualities: Inspirational Quotes, Self-Assessment of Symptoms, Ease of Layout, Psychoeducation, Notifications, Goal Setting

Negative Qualities: Lack of Features, Overwhelming, Unappealing Layouts, Lack of Culturally Relevant Resources, Lack of Accountability

Desired Features in Culturally-Adapted mHealth Interventions

Desired Features

- Inspirational Quotes

- Meditation/Deep Breathing Exercises

- Minigames

- Forums/Discussion Boards

- Resources

- Journaling Options

- Recommendations

- Personalization/Profile Options

- Psychological Assessments

Culturally Relevant Features

- Activities to promote racial identity exploration
- Content related to racial identity development
- Forum discussions for identity/discrimination
- Report system for discrimination
- Ability to process subtle discrimination
- Problem-solving skills/solutions for future experiences of discrimination

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Desired Topics

- Racial Identity & Race-Related Stress
- Stress & Psychological Symptoms
- Suicide
- Bullying, Puberty, & Self-Esteem
- Coping with the Mental Health Effects of Social Media
- Coping Strategies
- Self-Care Strategies
- Communication/Destigmatizing Strategies
- Religion/Spirituality Resources

Application Utilization Preferences and Considerations

- Anonymity and Confidentiality
- Flexibility
- Recovery/Maintenance
- Moderation
- Free
- Connected
- Creative Advertisements & Motivation Strategies

Discussion

- The development of free, culturally-adapted mHealth specifically for African American youth is an urgent need.

- mHealth can be used to reduce stigma individually and within communities

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Willis, H.A., Gonzalez, J.C., Call, C., Quezada, D., Galan, C. (2022) **Future Directions in Culturally-Adapted mHealth for Mental Health Treatment among Diverse Youth Populations**. *Journal of Child and Adolescent Clinical Psychology.*

Future Directions: mHealth and other Technologies for Mental Health

- Novel technologies may promote culturally-specific coping responses/address culturally-specific risk factors (e.g., VR- and AI-based interventions)
- JoyNet
  - Collaboration with Columbia University Computer Science Department & the University of Pennsylvania SAFELab
  - Funded by Microsoft AI 4 All Grant
  - Combination of youth-based participatory research with expert stakeholders (computer scientists, social workers, psychologists/psychiatrists, community-based organizations, etc.)

Future Directions: mHealth and other Technologies for Mental Health

- Barriers and Opportunities (Willis et al., 2022; *Journal of Clinical Child and Adolescent Psychology*)
  - Community-centered design and development processes.
  - RCTs and other studies that assess effectiveness and cultural relevancy of emerging technologies
  - Advance clinical practice/training standards and provide structure for sustainability of mHealth

Integrating Digital Interventions in Practice, Research, & Policy

mHealth can be used in combination with psychotherapy.

| Self-monitoring (Daily Mood Coach; CBT-I) | Choose digital interventions that can target specific risk/protective factors. |

Community-centered design approaches to researching and developing culturally-adapted digital interventions are essential.

Incorporate experts from other disciplines

Research can be used to influence policy to both a) reduce sociocultural risk factors; b)increase funding for new research; c) evaluate burgeoning technologies

"I and the African American Mental Health Equity Lab urge a favorable vote on **SB 571, Maryland Kids Code**. We believe that this legislation would provide common-sense protections for Maryland's Black and Latinx youth, giving them the opportunity to thrive in an ever-evolving digital world."

Dr. Henry Willis
Psychologist
University of Maryland
College Park

#MDKidsCode

INTERNET POLICY REVIEW   OPEN ACCESS   PUBLISH

DIVERSITY   GOVERNANCE   INFRASTRUCTURE & STANDARDS   INFORMATION & DATA   INNOVATION   INTELLECTUA

OPINION

Social work in metaverse: addressing tech policy gaps for racial and mental health equity

OPEN ACCESS

Siva Mathiyazhagan, *SAFELab, Columbia University, United States*
Minahil Salam, *SAFELab, Columbia University, United States*
Henry A. Willis, *SAFELab, Columbia University, United States*
Desmond U. Patton, *SAFELab, Columbia University, United States*

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METAVERSE

The Metaverse is a new combination of emerging technologies such as artificial intelligence (AI), extended reality (XR), and blockchain (Metz, 2021). These technologies will create a virtual world for social connections, entertainment, games, fitness, work, education, and commerce as a digital

How the Maryland Kids Code Would Protect Kids Online

- Require tech companies to design products likely to be accessed by children with children's well-being in mind.

- Restrict collection, processing, storage, and transfer of children's data and profiling of children in ways that are detrimental to children.

- Require high privacy settings by default, switch off geolocation, and prohibit the use of nudge techniques that encourage children to weaken their privacy protections.

#MDKidsCode

Translating Research to Policy

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Conclusion

There are understudied forms of racism that drive health disparities among youth of color (i.e., online racism).

Black youth and youth of color maintain resilience in the face of adversity, and racial identity beliefs is one key factor.

mHealth that incorporates culturally-relevant features and content can improve access to services.

Risk and resilience research can restructure mental health practices to help achieve health equity.

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Q&A