

Racial Differences in Cognition Among Individuals at Clinical High Risk for Psychosis (CHR-P): Pilot Data

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Background

- **Psychosis** is defined as difficulty telling the difference between what is real and not real
- May include hallucinations (perceptual experiences) and delusions (incorrect beliefs)
- **Clinical high risk for psychosis (CHR-P)** indicates a high risk of developing a psychotic disorder
- Race can impact mental health symptoms and diagnosis in many ways
 - There is bias in mental health diagnosis
 - **People of color** are 2.4 times more likely to be diagnosed with psychotic disorders [2].
- Cognition (thinking abilities like memory, processing) is investigated in many domains
 - Cognition is impacted in psychotic disorders (e.g., schizophrenia)
 - **CHR-P is associated with cognitive deficits** (e.g., processing speed, working memory, executive functions, attention, social cognition [1]).
 - Research finds cognitive differences across racial groups, which is complicated to interpret (e.g., bias in tests, impact of socioeconomic disparities).
 - Some research exists on cognition and race for psychotic disorders, but not specifically for CHR-P.
 - Research on cognitive patterns in non-White participants with psychotic disorders exists.
 - It is important to understand unique ways in which psychosis may vary based on race/ethnicity
 - Unique cultural context can impact experience, expression, and diagnosis of psychosis.

PEACS Pilot Data

PEACS Methods

Participants

- Adolescents and young adults (n= 243) who were seen for evaluation at CU's specialist CHR-P clinic ("PEACS") and had sufficiently complete baseline clinical assessment data (3/29/2021-7/12/2024)

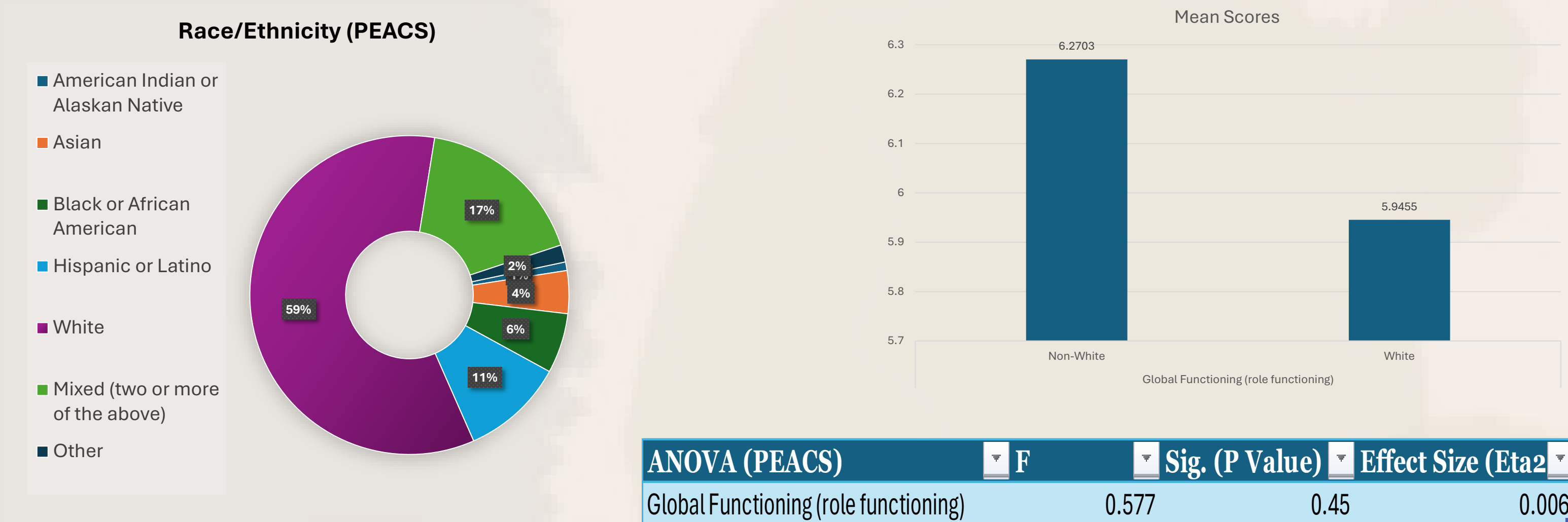
Procedures

- This project is a de-identified archival analysis of PEACS baseline clinical assessment data (e.g., clinician assessments), which PEACS aims to collect for all clients seen for evaluation (COMIRB approved)
- This project recoded race into 2 groups (White and Non-White) and selected analyzed baseline data

Measures

- Demographics questionnaire. Self-reported age, gender, race, etc.
- Global Functioning: Role (GF: R). Clinician-rated measure of role functioning designed for CHR-P research (1= extreme role dysfunction to 10=superior functioning)

PEACS Results



Discussion

- This project is a preliminary investigation of whether cognition differs across racial groups in people at risk for psychosis (CHR-P) using data from existing research and clinical samples.
- In these pilot samples, there were no significant differences between non-White and White participants in included cognitive variables.
- This project aims to highlight the critical issue of the **historical overdiagnosis of psychosis in ethnic minorities**.
- Unique cultural context can impact the experience and expression of psychosis.
- Cognitive assessments underscore the potential for **bias in diagnostic assessments**; cultural meanings may not be considered enough in diagnoses or interpreted incorrectly [3].
- Assessment of cognition across racial groups is complicated; if differences exist, the meaning of such differences would be difficult to interpret.
- Although not specifically investigated here, some considerations for assessment and care include:
 - Individualized delivery of assessment and treatment can provide culturally sensitive support to create a more inclusive and effective framework for mental health care across different ethnic groups and individuals at CHR-P.
 - Improve the quality of life through ethnically diverse and culturally sensitive treatments.
 - Develop specialized testing batteries that account for cultural differences.
 - Increase diversity of providers in hopes of enhancing ability to relate to and understand clients from diverse cultural backgrounds.

InVEST Pilot Data

InVEST Methods

Participants

- Youth ages 12-22, who participated in the InVEST randomized clinical trial (RCT; n=25)

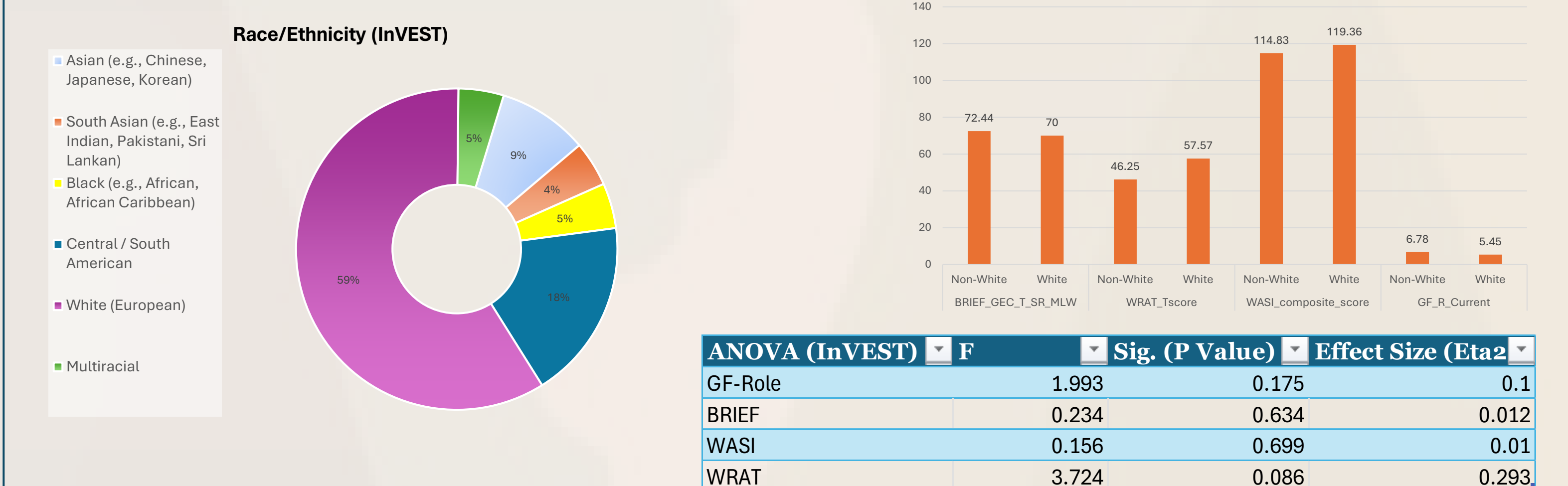
Procedures

- InVEST is a brief intervention (including a manual) in which "coaches" help young people with their role functioning (school, work)
- This is a small pilot trial (RCT) of InVEST
- Participants complete baseline assessments, engaged in InVEST or 4-month waitlist control, then complete follow-up assessments
- This project recoded race into 2 groups (White and Non-White) and analyzed baseline data

Measures

- Global Functioning: Role (GF: R): Clinician-rated measure of role functioning designed for CHR-P research (see above)
- WRAT (Wide Range Achievement Test): Designed to measure basic academic skills, this project used the Word Reading subtest, focused on T scores (raw scores adjusted based on age norms, mean of 100 and standard deviation of 15).
- WASI (Wechsler Abbreviated Scale of Intelligence): A brief measure of general cognitive ability (IQ), focused on T-Scores (standardized scores, mean of 50 and a standard deviation of 10, derived from raw scores).
- BRIEF 2 (Behavior Rating Inventory of Executive Function-2): Parent-report measure of EF in home and school (86 items), focused on T scores (60-64 is mild, 65-69 potentially clinical, 70+ clinically elevated)

InVEST Results



Research Question

Is there a racial difference in cognitive measures in individuals at clinical high risk for psychosis (CHR-P)?



Hypothesis & Objective

I hypothesize that there will be a **significant** difference between races (Non-White versus White) in cognition-related variables (role functioning, executive functioning, word reading, IQ estimate) for people experiencing CHR-P.

Compare cognition-related variables across racial/ethnic groups (Non-White versus White).

Limitations & Future Research

- The PEACS and InVEST data were **not sufficient** to examine cognitive functioning differences between racial groups (e.g., small sample size, need to dichotomize race, limited cognitive assessments)
- Need for larger sample sizes in future research.
- **Longitudinal studies** are crucial for better understanding cognitive changes over time across racial/ethnic groups and provide insight into **racial differences in cognitive changes** for CHR-P.
- Developing and testing **specialized testing batteries that consider cultural differences** is imperative.

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References: A complete reference list is available (see QR code)

