

INTRODUCTION

BACKGROUND: Schizotypal traits are a phenotypic indicator of schizotypy that underlie schizophrenia-spectrum proneness^{1,2} and parallel schizophrenia symptoms^{3,4} across three core domains (positive, negative, disorganized).^{5,6}

Literature indicates demographics such as race and ethnicity are linked with schizotypy in the general population.^{1,7,8,9}

Studies using the schizotypal personality questionnaire (SPQ)^{1,7,10,11} found lower positive, negative, and disorganized schizotypal traits among White individuals compared to other racial and ethnic groups.

CURRENT AIM: We sought to replicate prior findings of racial and ethnic group differences in schizotypal traits in a non-clinical population¹ of emerging adults.

HYPOTHESIS: White participants would report fewer positive, negative, and disorganized schizotypal traits than all other racial and ethnic groups.

METHODS

PARTICIPANTS: 775 (243 M / 532 F) undergraduates, ages 18 to 37 years, recruited from an urban, public university.

Race

12	American Indian or Alaskan Native
195	Asian
143	Black and/or African American
16	Native Hawaiian or Other Pacific Islander
220	White
189	Other

Ethnicity

272	Hispanic or Latino
503	Not Hispanic or Latino

PROCEDURES: Self-report measures were administered online, remotely via computer.

MEASURES:

- Basic demographic survey to assess race and ethnicity
- SPQ¹² to assess schizotypal traits
- Chapman Infrequency Scale¹³ to ensure valid responses.

METHODS

ANALYSES: Multivariate ANOVA examined racial and ethnic group differences by schizotypal trait domain; namely, Cognitive-Perceptual (SPQ-CP; positive), Interpersonal (SPQ-I; negative), Disorganized (SPQ-D), and Total (SPQ-T) traits. Follow-up ANOVAs and Tukey HSD were used. Alpha level set at .05; tests were two-tailed.

RESULTS

Overall MANOVA: SPQ scores significantly differed by race but not ethnicity [Pillai's Trace = 0.05, $F(20,3052) = 1.74, p = .02$].

Follow-up Analyses: SPQ-T [$F(5,684) = 4.08, p = .001$], SPQ-I [$F(5,248) = 5.64, p < .001$], and SPQ-CP [$F(5,150) = 2.52, p = .03$] scores differed significantly by race. SPQ-D difference by race was not statistically significant [$F(5,21) = 1.42, p = .22$].

Tukey HSD Post-Hoc Analyses: On SPQ-T, White participants ($M = 23.23, SD = 13.19$) differed significantly from Asians ($M = 29.35, SD = 13.50; MD = -6.12, SE = 1.27, p < .001$), Black and/or African Americans ($M = 27.71, SD = 11.98; MD = -4.48, SE = 1.39, p = .02$), and Others ($M = 28.90, SD = 12.83; MD = -5.68, SE = 1.28, p < .001$). On SPQ-I, White participants differed significantly from Asians ($MD = -3.49, SE = .65, p < .001$), Black and/or African Americans ($MD = -3.09, SE = .71, p < .001$), and Others ($MD = -3.61, SE = 0.66, p < .001$). On SPQ-CP, White participants reported fewer traits than Asians ($MD = -2.85, SE = 0.759, p = .003$) and Others ($MD = -2.42, SE = 0.77, p = .02$).

Figure 1: Mean Values for Schizotypal Negative Traits by Race and Ethnicity

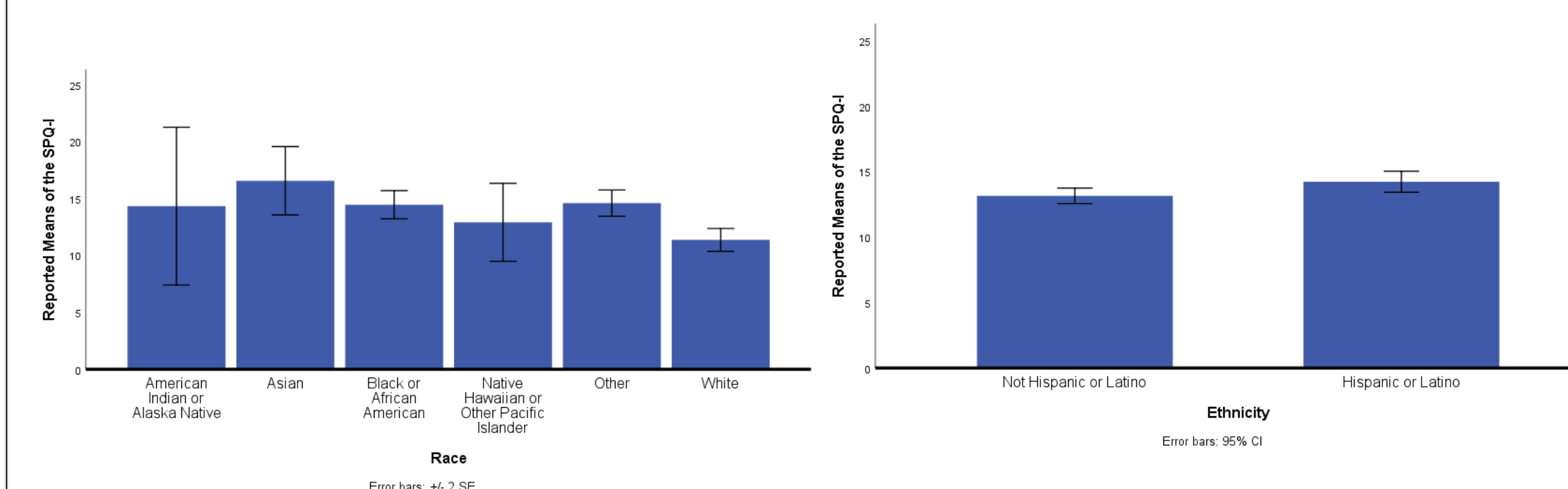
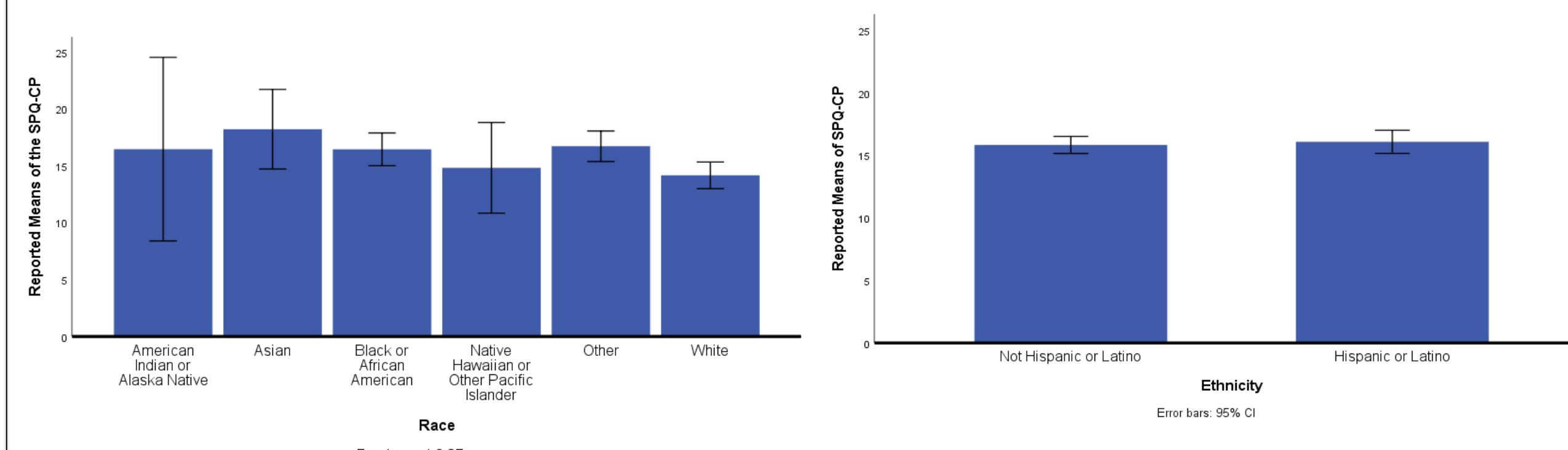


Figure 2: Mean Values for Schizotypal Positive Traits by Race and Ethnicity



DISCUSSION

• Racial, but not ethnic, group differences were demonstrated in schizotypal traits. Specifically, White individuals reported significantly fewer negative and total schizotypal traits than Asians, Black and/or African-Americans, and Others. Additionally, White individuals reported significantly fewer positive traits than Asians and Others.

• Overall, results support our hypothesis (except for schizotypal disorganized traits) and largely replicate majority of prior research demonstrating fewer positive and negative schizotypal traits among White individuals as compared to other racial and ethnic groups.

• A previous study¹⁴ found own-group ethnic density in neighborhoods may mitigate risk for psychotic experiences. This may apply to racial identity as well.

• Our findings may be attributable to, at least in part, potential “buffering” effects of own-group racial density.¹⁴ Further investigation is needed to clarify how own-group density may safeguard against or exacerbate mental health issues.

REFERENCES

- Goulding, S. M., McClure-Tone, E., & Compton, M. T. (2009). Associations Between Multiple Dimensions of Schizotypy and Sociodemographic Variables in a Nonpsychiatric Sample of Young Adults: *The Journal of Nervous and Mental Disease*, 197(10), 786–789.
- Thomas, E. H., Rossell, S. L., Tan, E. J., Neill, E., Van Rheenen, T. E., Carruthers, S. P., ... Gurvich, C. (2019). Do schizotypy dimensions reflect the symptoms of schizophrenia? *Australian & New Zealand Journal of Psychiatry*, 53(3), 236–247.
- Kwapil, T. R., Barrantes-Vidal, N., & Silvia, P. J. (2007). The Dimensional Structure of the Wisconsin Schizotypy Scales: Factor Identification and Construct Validity. *Schizophrenia Bull*, 34(3), 444–457.
- Fonseca-Pedrero, Eduardo & Compton, Michael & Tone, Erin & Ortuño Sierra, Javier & Paino, Mercedes & Fumero, Ascension & Lemos-Giráldez, Serafin. (2014). Cross-cultural invariance of the factor structure of the Schizotypal Personality Questionnaire across Spanish and American college students. *Psychiatry Research*. 220.
- Fonseca-Pedrero, E., Debbané, M., Ortuño-Sierra, J., Chan, R., Cicero, D., Zhang, L., ... Jablensky, A. (2018). The structure of schizotypal personality traits: A cross-national study. *Psychological Medicine*, 48(3), 451-462.
- Nelson, M. T., Seal, M. L., Pantelis, C., & Phillips, L. J. (2013). Evidence of a dimensional relationship between schizotypy and schizophrenia: A systematic review. *Neurosci & Biobehav Rev*, 37, 317–27.
- Cicero, D. C., Martin, E. A., & Krieger, A. (2017). Differential Item Functioning of the Full and Brief Wisconsin Schizotypy Scales in Asian, White, Hispanic, and Multiethnic Samples and Between Sexes. *Assessment*.
- Kwapil, T.R., Crump, R.A. and Pickup, D.R. (2002). Assessment of psychosis proneness in African-American college students. *J. Clin. Psychol.*, 58: 1601-1614.
- Tortelli, A., Nakamura, A., Suprani, F., Schürhoff, F., Van der Waerden, J., Szöke, A., ... Pignon, B. (2018). Subclinical psychosis in adult migrants and ethnic minorities: Systematic review and meta-analysis. *BJ Psych Open*, 4(6), 510-518.
- Cohen, Alex & Davis III, Thompson. (2009). Quality of life across the schizotypy spectrum: findings from a large nonclinical adult sample. *Comprehensive psychiatry*. 50. 408-14.
- Schiffman J. (2004). Schizotypal traits in a non-clinical sample from Hawai'i. *Pac Health Dialog*, 11(1): 84–6.
- Raine, A. (1991). The SPQ: A Scale for the Assessment of Schizotypal Personality Based on DSM-III-R Criteria. *Schizophrenia Bulletin*, 17(4), 555–564.
- Chapman, L. J., & Chapman, J. P. (1983). Infrequency Scale: University of Wisconsin .
- Das-Munshi, J., Bécares, L., Boydell, J., Dewey, M., Morgan, C., Stansfeld, S., & Prince, M. (2012). Ethnic density as a buffer for psychotic experiences: Findings from a national survey (EMPIRIC). *British Journal of Psychiatry*, 201(4), 282-290.

ACKNOWLEDGEMENTS

Many thanks are given to Dr. Deborah Walder and Victoria Martin for continued support with this project.