

California San Diego Joint Doctoral Program in
Clinical Psychology; lkamalya@health.ucsd.edu

6 Examining Relationships Between Perceived Discrimination, Metabolic Syndrome, and Cognition

Sarah Prieto, Savana M Jurgens, Jasmeet P Hayes
The Ohio State University, Columbus, OH, USA

Objective: Discrimination on the basis of race, gender identity, and age, among others, has been associated with negative cognitive outcomes. However, the mechanisms by which perceived discrimination impacts cognition are not yet well understood. Discrimination can lead to chronic stress, which disrupts glucocorticoid pathways and induces susceptibility to metabolic dysregulation. On the basis of this prior work, and the known associations between metabolic syndrome and cognition, the current study examined the hypothesis that metabolic syndrome mediates the relationship between discrimination and cognition.

Participants and Methods: 1,063 adults (Mean age = 54.92 years, SD = 11.68) who participated in the Midlife in the United States project were included. Confirmatory factor analysis was used to examine the acceptability of a bifactor model of metabolic syndrome using four subfactors (insulin resistance, adiposity, dyslipidemia, and blood pressure). The mediating effect of the metabolic syndrome latent factor on the association between discrimination and cognition was tested using PROCESS (Hayes, 2013). Exploratory analyses were conducted to examine which cognitive domains and which metabolic syndrome subfactors were driving these relationships. Mediation analyses adjusted for age, race, sex, and education.

Results: The three most frequently reported reasons for discrimination were gender ($n = 209$), age ($n = 174$), and race ($n = 129$). The CFA of metabolic symptoms was deemed acceptable based on previously outlined goodness of fit criteria (CFI = 0.986, TLI = 0.976, RMSEA = 0.040, SRMR = 0.034). Results of the mediation analysis indicated a significant indirect effect of major events discrimination on the total cognition composite through the general metabolic syndrome factor ($B = -0.0029$, 95% CI [-0.0016, -0.0066]). Further examination

revealed that this relationship was driven through an indirect path of metabolic syndrome on the relationship between discrimination and executive functioning ($B = -0.0024$, 95% CI -0.0059, -0.0001]). We examined which subfactors were driving these relationships and found that there were significant indirect effects of major events discrimination on total cognition through the insulin resistance ($B = -0.0028$, 95% CI -0.0065, -0.0003]) and dyslipidemia factors ($B = -0.0026$, 95% CI -0.0064, -0.0002]).

Conclusions: Our findings provide evidence that metabolic syndrome can help explain differences in cognitive functioning based on experiences of discrimination, even after adjusting for relevant demographic factors. Results from this study suggest that understanding the impact of perceived discrimination on metabolic syndrome and developing lifestyle interventions that can improve metabolic syndrome may be helpful in reducing stress-related cognitive disparities.

Categories: Other

Keyword 1: chronic stress

Keyword 2: minority issues

Keyword 3: cognitive functioning

Correspondence: Sarah Prieto, Department of Psychology, The Ohio State University, Columbus, OH, United States, prieto.39@buckeyemail.osu.edu

Poster Session 08: Assessment | Psychometrics | Noncredible Presentations | Forensic

3:30 - 4:45pm

Friday, 3rd February, 2023

Town & Country Foyer

1 Psychometric comparison of the long and short forms of the Personality Assessment Inventory in a neuropsychiatric population

Alanna Coady¹, Megan Udala¹, Erwin Concepcion², Naomi Nystrom², Maya Libben¹, Jamie Piercy¹, Harry Miller¹