University of South Alabama, Mobile, Alabama, USA

Objective: Research evaluating mindfulness and cognition has produced mixed results. However, variability in mindfulness has not been previously evaluated as a predictor of cognitive ability. This study evaluated the relation between intra-individual variability (IIV) in mindfulness and cognitive performance.
Participants and Methods: 274 university participants (M=19 years old, SD=1.5; 72.6% female, 67.2% White, 25.6% African American, 3.3% Asian American, 1.1% Hispanic American) completed the Five Facet Mindfulness Questionnaire (FFMQ) and the CNS Vital Signs computerized test battery. IIV was computed from the FFMQ facet T-scores. Additionally, high and low cognitive performance groups were formed from the top and bottom 16% of the sample using the neurocognition index (NCI) score from CNS Vital Signs (N=52 high NCI performance and N=46 low NCI performance).
Results: Pearson r correlations were used to evaluate the relation between mindfulness IIV and CNS Vital Signs domains. Mindfulness IIV was negatively associated with performance on the domains of psychomotor speed [r=-.18; p=.003], composite memory [r=-.14; p=.023] and verbal memory [r=-.15; p=.015]. For the high NCI group, IIV mindfulness was positively associated with cognitive flexibility [r=.31; p=.024], executive functioning [r=.33; p=.016] and was negatively related to visual memory [r=-.28; p=.043]. For the low NCI group, IIV mindfulness was negatively related to psychomotor speed [r=-.49; p<.001], composite memory [r=-.32; p=.033] and verbal memory [r=-.31; p=.038]. There was no relation found for individual FFMQ facet scores and CNS Vital Sign domains.
Conclusions: Increased consistency in self-reported mindfulness (lower IIV) was associated with greater processing speed and memory performance in the overall sample. However, the relation been mindfulness IIV and cognitive performance changed greatly in high NCI performers compared to low NCI performers. The low NCI group may be a proxy for poor effort which would explain why more variable self-reported mindfulness was associated with worse performance for processing speed and memory and this could be driving the results for the overall sample. However, our findings for the high NCI performance group are unique and suggest an association between increased variability in mindfulness facets and improved cognitive flexibility and executive functioning. Further study of mindfulness variability and aspects of executive functioning is warranted.

Categories:
Assessment/Psychometrics/Methods (Adult)
Keyword 1: cognitive functioning
Keyword 2: neuropsychological assessment
Keyword 3: metacognition
Correspondence: Ivan Campbell, University of South Alabama, iac2221@jagmail.southalabama.edu

24 Demographic Adjustment Is Not Demographic Correction: A Simulation Study

Jacob A Fiala
University of Florida, Gainesville, FL, USA

Objective: Prior studies have presented demographic adjustment as beneficial because it helps equalize, across demographic groups, the percentage of participants (recruited from the general population without prior diagnosis) who fell beneath the test impairment cutoff (e.g., Smith, et al., 2008). This methodology ignores the possibility that group differences in those falling beneath an impairment cutoff could reflect cognitive impairment prevalence differences between demographic groups in the undiagnosed general population. Demographic group differences in cognitive test scores reflect a mixture of two categories of influences: measurement bias (item/test/examiner bias, language/cultural bias, stereotype threat, etc.) and factors which differentially increase the number of low scores in one group by increasing relative risk (RR) for cognitive impairment (biological aging processes, cognitive reserve, social determinants of health [SDoH], etc.). The current simulation study examined how the effect of demographic adjustment on the diagnostic accuracy of a hypothetical test (operationalized as the area under the curve [AUC] in an ROC analysis) varied as the mixture of influences which caused demographic differences in scores were varied.
Participants and Methods: 215,040 samples were randomly generated. Each sample consisted of two demographic groups, with

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Group 0 always representing the lower scoring group. Across samples, Group 1's baseline risk of impairment and Group 0's relative risk were varied, and these determined the prevalence of cognitive impairment in the groups. Three facets of measurement bias were varied in the simulation: how much lower Group 0's average score was than Group 1's, the degree of non-homogeneity of variance between groups, and how much less reliable the measure was for Group 0. Additional parameters were included and varied to ensure the robustness of findings across a variety of situations. Samples reflected all possible combinations of all varied parameters. For each sample, a baseline AUC was calculated when impairment was regressed on the unadjusted test score. Then, test scores were adjusted for demographic group and difference in adjusted and unadjusted AUC was calculated. This adjusted/unadjusted AUC difference was then regressed on the simulation parameters to quantify their relative influence.
Results: The more Group 0's average score was reduced by measurement bias, the more improvement in AUC was seen after adjustment (β = 1.76). Trivial but significant main effects of variance non-homogeneity (β = .09), increased relative risk (β = -.08), and reduced reliability (β = .02) were also found, but more importantly, each of these predictors significantly interacted with Group 0 mean score reduction, such that higher relative risks (β = -1.22), lower reliability (β = .36), and higher variance (β = -.15) in Group 0 compared to Group 1 each reduced the association between Group 0 mean score reduction and improvement in AUC.
Conclusions: Demographic adjustment only improves AUC when the mean reduction in scores due to measurement bias is sufficiently high while risk for impairment, test reliability and test score variances are sufficiently equivalent among the demographic groups. When this is not the case, demographic adjustment can be counter-productive, reducing the AUC of the test. We conclude by proposing a novel method for adjusting test scores.

Categories:
Assessment/Psychometrics/Methods (Adult)
Keyword 1: neuropsychological assessment
Keyword 2: test theory
Keyword 3: normative data
Correspondence: Jacob Fiala, University of Florida, jacobfiala@ufl.edu

25 The Relationship between Judgment and Cognitive Performance in a Mixed-Clinical Older Adult Veteran Sample

Katelyn Brown, Kayla Kleinman, Jada J. Stewart-Willis
Bay Pines VA, St. Petersburg, FL, USA

Objective: Judgment, defined as the capacity to make decisions carefully after consideration of available information, which may entail a variety of sources, has come to be regularly assessed within neuropsychology, and impairment of judgment has been demonstrated across multiple disorders (Rabin, Borgos, & Saykin, 2008). This study aimed to re-examine the relationship between judgment and performance on measure of cognitive functioning including (memory, attention, language, visuospatial abilities, speed, and aspects of executive functioning) in a mixed-clinical sample of older adult veterans.
Participants and Methods: Data for this study was collected from the Cognitive Functioning in Older Adult Veteran's database repository (CFOAV) at a large Veteran Affairs Healthcare System (VAHCS). Participants were veterans seeking treatment in the Neuropsychology Assessment Clinic. Inclusion criteria were that participants must have answered the nine questions from the TOP-J and received a score based on the specific criteria. Participants were excluded if they appeared to lack adequate test engagement or had a serious mental illness. The final sample for the current study consisted of 83 veterans (73% male, n = 76), ranging from 50 to 89 years (M = 72.01, SD = 9.70), with and average of 13 years of education (SD = 3.21). Of the sample, 75% reported that they were White, 7% African American/Black, and 1% Latino/Hispanic, and ICD-10 diagnoses ranged from age-related cognitive decline, mild cognitive impairment, vascular dementia, and dementia in other disease classified.
Results: Using SPSS (Version 27), Pearson correlations were conducted to examine the relationship between the TOP-J raw score, demographic variables, and measures of cognitive functioning, including the WTAR, the RBANS index scores, WAIS-DS, TMT A , TMT B, COWAT, and ANT. Missing data were excluded pairwise in the analyses. Correlation analyses revealed a significant small-to-medium correlation between the TOP-J and the. There were small to medium correlations between the

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