ABSTRACT

DISSERTATION: A Comparison of Language, Demographics, and Word Reading as an Estimate of Premorbid Functioning

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In the field of neuropsychology, estimation of premorbid functioning is essential for determining areas of neurocognitive decline following an acquired injury or onset of a neurodegenerative condition, and it plays a key role in differential diagnosis, forensic practice, intervention design, and prognoses regarding functional impairments (Almkvist & Tallberg, 2009; Davis, Bernat, & Reynolds, 2018; Fazel, Hope, & Jacoby, 2000; Leeson, Barnes, Hutton, Ron, & Joyce, 2009). The purpose of the current study was to investigate the extent to which the most parsimonious combinations of measures of receptive language, expressive language, word reading, and demographic variables would estimate intellectual functioning for the purpose of exploring measures that could be used in estimation of premorbid functioning. Intellectual functioning was assessed using the *Wechsler Adult Intelligence Scale – Fourth Edition* (WAIS-IV; Wechsler, 2008a), receptive language using the *Peabody Picture Vocabulary Test – Fifth Edition* (PPVT-5; Dunn, 2019), expressive language using the *Expressive Vocabulary Test, Third Edition* (EVT-3; Williams, 2019), word reading using the *Test of Premorbid Functioning - Only Model* (TOPF; PsychCorp, 2009), and relevant demographic variables included participant age, ethnicity, gender, years of education, mother's and father's highest level of education, and mother's and father's occupation. Participants were 49 college students (35 females and 14 males, mean age in years = 19.68) who completed these measures as part of a larger study.

Results of best subsets and multiple regression analyses indicated that a combination of the EVT-3, years of education, and mother's occupation more accurately estimated overall intellectual functioning (WAIS-IV FSIQ), compared to each measure alone. The current study did not support the hypothesis that the TOPF would be among the most parsimonious predictors of the WAIS-IV FSIQ, WMI, PRI, and PSI. Though the PPVT-5 was significantly correlated with overall intellectual functioning, the current study did not find the PPVT-5 to be as good of a predictor of intellectual functioning, compared to the other measures examined. Future studies should continue exploring the relationship between these variables and intellectual functioning, in order to better understand its utility in predicting premorbid intellectual functioning for diverse populations with acquired neurocognitive decline and deficits.