

Quality of Education & Level of Education in Association with Executive Functioning in Older American Indians

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Objective: Level of educational achievement is often associated with executive functioning (EF) and overall health. However, education level does not account for the quality of education, which may be a better educational index for older American Indians (AIs). Many older AIs have suffered traumatic educational experiences, such as forced boarding schools and relocation focused on cultural assimilation rather than subject knowledge. This study investigated the relationship between EF and quality of education in older AIs.

Participants and Methods: Participants were recruited from a southwestern urban area who self-identified as AI aged 55 to 80 years (N=42). Participants completed questionnaires, interviews, quality of education (Wide Range Achievement Tests, WRAT) and executive functioning tests (WASI and verbal semantic fluency, VSF) over two sessions.

Results: Both education quality and level were significantly associated with WASI Matrix scores and VSF plants. Only education level was positively correlated with VSF fruits and vegetables and only quality of education was positively correlated with VSF animals. Regression analyses revealed that quality of education yielded significant regression equations for VSF animals, VSF plants, and WASI Similarities.

Conclusions: Education quality accounted for the variance in several EF tests over and beyond education level in this sample. This suggests quality of education may better explain EF test performance in older AIs than educational achievement.

Non-Expert Summary: Brain functioning is linked to health. In addition, education improves brain functioning. However, all education is not equal and the quality of education is more informative than the years spent in school. This is even more true for American Indians because of the long and often tragic history of Indigenous education in the U.S. We found that quality of education described certain aspects of brain function better than education level for American Indian older adults.