

GRACA Abstract

Association between Adaptive Functioning & Intelligence in Children with Down syndrome

Jennifer N. Sexton, Ramirez, M., Phipps, C., Heller, A., Behm, L., Zatkalik, A., Nickolas, K., Maerlender, A., Phatak, V., Cramer, J., Blair, J., Murman, D., Warren, D.

Deficits in intelligence and adaptive functioning are hallmark diagnostic features of Down syndrome, and as such, understanding the relationship between these two constructs is critical. A recent meta-analysis reported that the relationship between intelligence and the adaptive functioning among people with Down syndrome is moderate (Alexander & Reynolds, 2020), but correlations vary widely across study.

In this project, we investigated the association between adaptive functioning and intelligence in a sample of children with Down Syndrome. Our sample included children with Down syndrome ($N = 6$; age: 8-13) recruited from the Eastern Nebraska region and tested at the University of Nebraska Medical Center and the Munroe Meyer Institute. Adaptive functioning was measured using the Vineland Adaptive Behavior Scale – Parent Report. Intelligence was measured using the Kaufman Brief Intelligence (Kbit) Scale.

Adaptive functioning was not significantly associated with intellectual abilities as measured by the Kbit when controlling for age, $r(3) = .204$, $p = .742$. However, the direction of the relationship between intellectual abilities and adaptive functioning (higher scores on a measure of intellectual ability with high adaptive functioning abilities) is consistent with previous literature (Alexander & Reynolds, 2020). Interestingly in this sample, performance on the kbit was negatively correlated with age, $r(5) = -.828$, $p = .042$.

These results suggest that better adaptive functioning abilities may be associated higher intellectual abilities, but findings were non-significant in the current dataset. Outside the scope of this analysis, we expect that in the future, a larger sample will provide greater statistical power to test the association of adaptive functioning and intellectual abilities.