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Functional Predictors of Academic Performance in Portuguese in Children and Adolescents with Down Syndrome: A Documentary Study

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Abstract

Down syndrome is a genetic condition associated with intellectual disability, characterized by variability in cognitive and adaptive functioning, directly impacting academic development, particularly literacy acquisition. Evidence suggests that adaptive functioning plays a central role in learning outcomes in this population. This study aimed to investigate the relationship between adaptive functioning and academic performance in Portuguese in children and adolescents with Down syndrome. This is a documentary, exploratory study conducted using secondary data from a specialized educational institution (ADID), following ethical criteria applicable to this type of research. The sample consisted of 33 participants aged between 9 and 17 years ($M = 14$; $SD = 2.6$). Adaptive functioning was assessed using the International Classification of Functioning, Disability and Health (ICF), and academic performance was measured through Match-to-Sample (MTS) tasks in Portuguese. Spearman correlation analysis revealed a moderate positive association between adaptive functioning and performance in Portuguese ($r_s = 0.546$; $p = 0.001$), with an effect size of $r^2 = 0.30$, indicating that approximately 30% of the variability in performance can be explained by functional abilities. Additionally, odds ratio analysis showed that individuals with higher levels of adaptive functioning had a greater likelihood of adequate performance in Portuguese ($OR = 5.42$). The findings suggest that adaptive functioning is a relevant predictor of literacy-related skills in individuals with Down syndrome. The results reinforce the importance of parental guidance and behavioral intervention in the development of adaptive skills, contributing to the literacy process. Interventions targeting functional and behavioral domains may support educational planning and lead to improved developmental outcomes in this population.