

THE ROLE OF EXECUTIVE COGNITION IN THE PREDICTION OF HIV MEDICATION ADHERENCE

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Abstract

OBJECTIVE: Highly Active Antiretroviral Therapy improved clinical outcomes of HIV infection. However, suboptimal medication adherence may result in the development of drug-resistant strains and viral replication. Aim of the present study is to explore whether executive cognition predicts antiretroviral adherence among HIV individuals beyond and above demographic variables, disease characteristics, motor and overall cognitive functioning.

MATERIAL-METHOD: 76 HIV individuals completed a comprehensive executive function test battery, along with measures of verbal memory, motor functioning, processing speed, visuospatial perception, picture naming and overall cognitive performance. Medication adherence was assessed via a visual analogue self-report scale recording the amount of prescribed doses taken during the past month. First, a stepwise linear regression was conducted to examine the ability of executive test performance to predict medication adherence. Subsequently, executive test performance was entered at the final step (5th block) of a hierarchical regression model in order to assess their additional predictive power on medication adherence.

RESULTS: Performance on two executive cognition measures was associated with medication adherence, explaining 14.7% of its variance. In the hierarchical regression model, 21.5% of the variance in medication adherence reports was explained by treatment complexity (number of pills taken) and visuospatial functioning, whereas the addition of executive performance added unique variance, increasing the amount of variance explained through the model to 37.1%.

CONCLUSIONS: Assessment of executive functioning suggests a promising effort in order to increase the predictive ability of medication adherence among HIV individuals.