

The impact of play-informed caregiver-implemented home-based intervention on the academic learning outcomes for HIV positive children (aged 5 years to 8 years) on Antiretroviral Therapy (ART) living in low income conditions: A Randomized Control Trial

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Introduction: Occupational therapy has yet to demonstrate its impact in promoting the occupation of academic learning in HIV positive children on ART, which is often negatively effected leading to poor performance at school.

Objectives: This study investigates and compares the impact of two occupational therapy interventions; conventional one-on-one occupational therapy (control group) and play-informed caregiver-implemented home-based intervention (PICHIBI) (experimental group), in promoting academic learning for HIV positive children aged 5 to 8 year olds on ART.

Methods: The research project followed a pragmatic, single-blinded, randomised baseline, mid and post-test control-group design. From a population of 60 dyads attending the Groote Schuur Hospital (Cape Town, South Africa) ARV clinic, 23 child-caregiver dyads (N=23) completed the intervention, once they were randomised using a central computer system. Data was collected using the Griffiths Mental Developmental Scales-Extended Revised (GMDS-ER), and the short form Beery-Buktenica Visual Motor Integration test , 5th edition (Berry-VMI) as outcome measures.

Results: Following randomisation there were minimal variations in the baseline demographics and measurements for the two groups, with the exception of a significant difference in time on ART ($p=.021$). The majority of each group had suppressed viral loads, with the total sample showing delays at baseline in all performance components linked to academic learning. Post-test between-group differences showed significant improvements in both intervention groups, but in different performance components.

Conclusion: PICHIBI is more advantageous as its better suited for expanding access to occupational therapy services, in a context where occupational therapist/patient ratio in the public health sector is low.