# Virtual Reality Therapies in Mental Health among University Students in Lagos

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## Abstract

Virtual reality (VR) has emerged as a promising tool in mental health interventions, particularly for treating anxiety and depression among university students. Participants were recruited from three universities in Lagos. A mixed-methods approach was employed, with self-reported questionnaires used for quantitative data collection. Qualitative interviews supplemented the findings by providing deeper insights into participants' experiences and perceptions of VR therapy. VR therapy resulted in a statistically significant reduction ($p < 0.05$) in stress levels among university students compared to baseline measurements, indicating its potential as an effective mental health intervention tool. The findings suggest that VR therapies can be a valuable adjunct to traditional treatment methods for managing mental health issues among university students. Future research should explore the scalability and cost-effectiveness of VR therapy implementation in diverse educational settings. Clinical guidelines incorporating VR as part of mental health care plans are also recommended. Model estimation used $\hat{\{\theta\}} = argmin\{\theta\} \, sumiell(yi, f\theta(\xi)) + \lambda lVert\theta rVert\, 2^2$, with performance evaluated using out-of-sample error.

**Keywords:** *Virtual Reality, Mental Health, University Students, Nigeria, Spatial Cues, Empiricism, Cognitive Behavioural Therapy, Neuroplasticity*

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