



# Virtual Reality–Mediated Adolescent Mental Health Support Groups in Ghanaian Informal Settlements: Five-Year Adoption Analysis

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## Abstract

Virtual Reality (VR) technology has shown promise in enhancing mental health support services for adolescents in various settings. In Ghanaian informal settlements, VR-mediated adolescent mental health support groups have been implemented to address barriers such as stigma and access. The study employed mixed-methods including quantitative surveys ( $N = 300$ )  $\wedge$  *qualitative interviews* ( $n = 25$ ). Data were analysed using logistic regression to model adoption rates and thematic analysis for qualitative insights. Adolescent mental health support groups showed a significant increase in adoption from 10% at the start of the study to 40% by the end, with higher uptake among youth aged 15-18 compared to older adolescents ( $p < 0.05$ ). While VR-mediated support groups proved effective, factors such as parental involvement and community engagement were crucial for sustained adoption. Future studies should explore the long-term effects of these groups and examine how varying contextual factors impact their success in diverse settings.

**Keywords:** *Virtual Reality, Adolescents, Mental Health, Ghana, Informal Settlements, Technology Adoption, Intervention Design*

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