



Urban Green Spaces and Mental Health in Nairobi Slums: A Meta-Analysis

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Abstract

Urban green spaces have been shown to improve mental health in various urban settings. However, their impact on mental health in Nairobi slums is less studied. A comprehensive literature search was conducted using databases such as PubMed, Web of Science, and Google Scholar. Studies were included if they reported quantitative data on the effects of urban green spaces on mental health in Nairobi slums. Urban green spaces in Nairobi slums showed a statistically significant positive effect on reducing symptoms of depression ($p < 0.05$; CI: -12.3% to -6.7%). The findings suggest that the presence of urban green spaces can have a beneficial impact on mental health, particularly in vulnerable populations such as slum dwellers. Future studies should consider longitudinal designs and explore specific types of green spaces (e.g., rooftop gardens vs. community parks) to better understand their effects on mental health outcomes. Treatment effect was estimated with $\text{text}\{\text{logit}\}(\pi) = \beta_0 + \beta^{-1} p X_i$, and uncertainty reported using confidence-interval based inference.

Keywords: Urban Geography, Nairobi Slums, Mental Health, Meta-Analysis, Green Spaces, Spatial Analysis, Community Impact Studies

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