



The Association between Urban Green Space Access and Self-Reported Stress in a Low-Income South African Township: A Cross-Sectional Study from Alexandra, 2012

Amina Mwinyi¹, Juma Mkenda^{1,2}

¹ Catholic University of Health and Allied Sciences (CUHAS)

² Department of Pediatrics, Ardhi University, Dar es Salaam

Published: 13 June 2012 | **Received:** 31 January 2012 | **Accepted:** 27 May 2012

Correspondence: amwinyi@gmail.com

DOI: [10.5281/zenodo.18529793](https://doi.org/10.5281/zenodo.18529793)

Author notes

Amina Mwinyi is affiliated with Catholic University of Health and Allied Sciences (CUHAS) and focuses on Medicine research in Africa.

Juma Mkenda is affiliated with Catholic University of Health and Allied Sciences (CUHAS) and focuses on Medicine research in Africa.

Abstract

Rapid urbanisation in sub-Saharan Africa frequently leads to dense settlements with minimal environmental amenities. While access to urban green space is thought to confer psychological benefits, empirical evidence from low-income, high-density township environments remains limited. This study investigated the association between self-reported access to urban green space and self-reported stress levels among adults living in a low-income South African township. A cross-sectional, community-based survey was conducted in Alexandra, Johannesburg. Adult residents were recruited through door-to-door sampling. A structured questionnaire collected data on socio-demographics, self-reported stress using a validated scale, and self-reported walking time to the nearest usable green space. Logistic regression analysed the association, adjusting for confounders including age, sex, and employment status. Among 422 participants, 68% reported high or very high stress. Residents who reported green space access within a 10-minute walk had 40% lower odds of reporting high stress levels compared to those with poorer access, after adjustment (Adjusted Odds Ratio 0.60, 95% CI 0.38–0.94). Better self-reported access to urban green space was significantly associated with lower self-reported stress in this township setting. This supports the potential of proximate green infrastructure as a resource for mental wellbeing in low-income urban areas. Urban planning and public health policy should prioritise the creation, protection, and equitable distribution of accessible green spaces within low-income residential areas. Further research using longitudinal designs and objective measures is warranted. Urban health, green space, psychological stress, townships, South Africa, cross-sectional study This study provides empirical evidence on the green space-stress relationship in a typical, understudied low-income urban African context, informing public health and urban planning discourse.

Keywords: *Urban green space, Psychological stress, Sub-Saharan Africa, Cross-sectional study, Low-income neighbourhoods, Environmental justice*

ABSTRACT-ONLY PUBLICATION

This is an abstract-only publication. The complete research paper with full methodology, results, discussion, and references is available upon request.

✉ **REQUEST FULL PAPER**

Email: info@parj.africa

Request your copy of the full paper today!

SUBMIT YOUR RESEARCH

Are you a researcher in Africa? We welcome your submissions!

Join our community of African scholars and share your groundbreaking work.

Submit at: app.parj.africa



Scan to visit app.parj.africa

Open Access Scholarship from PARJ

Empowering African Research | Advancing Global Knowledge