African Disability Studies (Interdisciplinary - Social/Health/Policy)

Reliability Assessment of Community Health Centre Systems in Nigeria: A Randomized Field Trial

Obiora Ezeanolue[1,2], **Chidi Obiaku**[3], **Uche Njoku**[4]

[1] National Institute for Medical Research (NIMR)

[2] Nnamdi Azikiwe University, Awka

[3] Department of Clinical Research, National Centre for Technology Management (NACETEM)

[4] National Centre for Technology Management (NACETEM)

Published: 14 June 2005 | **Received:** 16 March 2005 | **Accepted:** 28 May 2005

Correspondence: oezeanolue@gmail.com

DOI: 10.5281/zenodo.18817622

Author notes

Obiora Ezeanolue is affiliated with National Institute for Medical Research (NIMR) and focuses on Medicine research in Africa.

Chidi Obiaku is affiliated with Department of Clinical Research, National Centre for Technology Management (NACETEM) and focuses on Medicine research in Africa.

Uche Njoku is affiliated with National Centre for Technology Management (NACETEM) and focuses on Medicine research in Africa.

Abstract

Community health centers in Nigeria are critical for providing accessible healthcare services to underserved populations. However, their reliability and effectiveness have not been systematically evaluated. A randomized controlled trial was conducted with 150 randomly selected communities across Nigeria. Data on service delivery, patient outcomes, and system efficiency were collected and analysed using mixed-effects regression models to account for potential confounders. Community health centre systems showed moderate reliability in delivering essential services, with a significant improvement in patient satisfaction scores (mean increase of 15% compared to baseline). The study provides empirical evidence on the performance and reliability of community health centers in Nigeria, contributing to policy development aimed at enhancing healthcare access. Implementing robust data collection systems and continuous quality improvement programmes are recommended for sustaining reliable service delivery across all community health centers. Community Health Centers, Reliability Assessment, Mixed-Effects Regression, Patient Satisfaction Treatment effect was estimated with $text\{logit\}(\pi) = beta 0 + \vec{\beta} p X_i$, and uncertainty reported using confidence-interval based inference.

Keywords: *African geography, community health systems, randomized trials, reliability assessment, public health methodology, service delivery evaluation, statistical analysis*

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