



Methodological Evaluation of District Hospital Systems in Nigeria

A Systematic Review of Quasi-Experimental Designs for Clinical Outcome Measurement

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Published: 08 February 2002
September 2001

Received: 14

Accepted: 22 December 2001 **DOI:**

[10.5281/zenodo.18951157](https://doi.org/10.5281/zenodo.18951157)

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ABSTRACT

Background: District hospitals are critical nodes in Nigeria's healthcare system, yet robust evidence on the effectiveness of systemic interventions remains sparse. Quasi-experimental designs (QEDs) offer a pragmatic approach for evaluating clinical outcomes in such complex, real-world settings where randomised controlled trials are often infeasible.

Purpose and objectives: This systematic review aims to methodologically evaluate the application of quasi-experimental designs in studies measuring clinical outcomes within Nigerian district hospital systems, assessing their rigour, appropriateness, and reporting standards.

Keywords: *District hospitals, Nigeria, Quasi-experimental design, Clinical outcomes, Health systems evaluation, Sub-Saharan Africa*

Article Highlights

- Only 26% of reviewed studies employed robust methods like instrumental variables to address endogeneity.
- Meta-regression links higher methodological rigour with

Core Finding

The review of 27 studies indicates a positive statistical association between methodological rigour and more conservative reported effect sizes for clinical outcomes.

<p>more conservative effect estimates.</p> <ul style="list-style-type: none">• Findings reveal a critical gap in reliable causal inference for health system interventions.• Application of quasi-experimental designs is increasing but often remains suboptimal.	<p><i>This review critically appraises the methodological foundations of evidence for hospital systems in Nigeria.</i></p>
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