



Methodological Evaluation of Community Health Centre Systems in Senegal Using Quasi-Experimental Design for Clinical Outcome Measurement

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Abstract

Community health centers in Senegal face challenges in maintaining high-quality clinical outcomes due to resource constraints and varying levels of operational effectiveness. A mixed-methods approach combining quantitative (e.g., outcome measurements) and qualitative data collection methods was employed. Data were collected from through surveys, interviews with health centre managers, and clinical records analysis. The study revealed that patient adherence rates improved by 15% in centers where comprehensive follow-up programmes were implemented (mean adherence rate: 78%). This quasi-experimental design successfully identified key factors affecting clinical outcomes in Senegalese community health centers, providing actionable insights for policy and resource allocation. Health authorities should prioritise the development of comprehensive follow-up programmes to enhance patient adherence rates and overall clinical performance. Community Health Centers, Quasi-Experimental Design, Clinical Outcomes, Patient Adherence, Senegal Treatment effect was estimated with $\text{text}\{\text{logit}\}(\pi) = \beta_0 + \beta_1 X_i$, and uncertainty reported using confidence-interval based inference.

Keywords: *African geography, community health centers, mixed-methods, quasi-experimental design, clinical effectiveness, resource allocation, outcome measurement*

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