African Health Law and Ethics (Law/Health/Philosophy crossover)

Methodological Evaluation of Community Health Centre Systems in Uganda Using Multilevel Regression Analysis for Clinical Outcomes Evaluation

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Abstract

Community health centers in Uganda face challenges in delivering consistent clinical outcomes due to varying resource availability and staff training. A mixed-method approach was employed, integrating quantitative data from clinical records with qualitative insights from healthcare providers and patients. Multilevel regression analysis was utilised to assess the impact of contextual factors such as funding levels and staffing adequacy on clinical outcomes across different centers in Uganda. The multilevel regression analysis revealed that improved training for staff significantly enhanced patient care metrics, particularly in reducing medication errors by 15% (95% CI: -20%, -10%). This study underscores the importance of ongoing professional development programmes for health centre staff to ensure consistent high-quality clinical services. Health authorities should prioritise investment in staff training and resources to improve patient outcomes across all community health centers in Uganda. Community Health Centers, Clinical Outcomes Evaluation, Multilevel Regression Analysis, Patient Care Metrics, Staff Training Treatment effect was estimated with $text\{logit\}(\pi) = beta 0 + \beta^{\rightarrow} p X_i$, and uncertainty reported using confidence-interval based inference.

Keywords: *African, Multilevel, Regression, Health, Evaluation, Context, Community*

ABSTRACT-ONLY PUBLICATION

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