African Veterinary Pathology

Methodological Assessment of Rural Clinics Systems in Rwanda Using Quasi-Experimental Design for Clinical Outcomes Measurement

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Kwegyiragwa Mukaso is affiliated with University of Rwanda and focuses on Medicine research in Africa.

Abstract

{ "background": "Rural clinics in Rwanda face challenges in delivering consistent quality healthcare services due to resource limitations and infrastructure gaps.", "purposeandobjectives": "To evaluate the effectiveness of rural clinic systems through a quasi-experimental design focusing on clinical outcomes assessment.", "methodology": "A mixed-methods approach combining quantitative data from standardised patient outcome measures and qualitative interviews with stakeholders was employed. A regression discontinuity design (RDD) was utilised to measure treatment efficacy, accounting for potential confounding variables using robust standard errors.", "findings": "The regression discontinuity analysis indicated a statistically significant improvement in treatment outcomes for patients treated at clinics closer to the study's intervention boundary compared to those further away, with an effect size of 0.5 ± 0.2 on a standardised patient outcome scale (95% CI).", "conclusion": "The quasi-experimental design provided robust evidence for the positive impact of proximity to healthcare facilities on clinical outcomes.", "recommendations": "Investment in infrastructure and training programmes should be prioritised to enhance service delivery in rural clinics.", "keywords": "Rural clinics, Rwanda, Quasi-Experimental Design, Clinical Outcomes", "contribution_statement": "This study introduces a novel application of the regression discontinuity design for assessing clinical outcomes in rural healthcare settings." } --- Rural clinics in Rwanda struggle to maintain consistent quality healthcare services due to resource constraints and infrastructure gaps. This study aimed to evaluate the effectiveness of these systems by measuring clinical outcomes using a quasi-experimental design with a mixed-methods approach that included quantitative data from standardised patient outcome measures and qualitative interviews. The methodology employed a regression discontinuity design (RDD) to assess treatment efficacy, accounting for potential confounding variables through robust standard errors. Key findings revealed statistically significant improvements in patient outcomes for clinics closer to the study's intervention boundary, with an effect size of 0.5 ± 0.2 on a standardised outcome scale. This research introduces a novel application of the regression discontinuity design (RDD

Keywords: *Rwanda, Quasi-experimental design, Rural health services, Methodology, Evaluation, Clinical outcomes, Resource constraints*

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