



User Adoption and Health Outcomes of Mobile Health Apps in Chronic Disease Management Among Nairobi Slum Populations

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Abstract

Mobile health apps are increasingly used for chronic disease management globally, but their effectiveness in urban slum populations remains underexplored. A mixed-methods approach was employed, including surveys to assess app usage and qualitative interviews for in-depth insights. Data were analysed using chi-squared tests and thematic analysis. Among the 120 participants surveyed, 65% reported regular use of an app designed specifically for diabetes management, with significant improvements noted in glycemic control (mean reduction of A1c by 1.3%). Mobile health apps show promise as a tool to enhance chronic disease management in Nairobi slums, though further research is needed to address user engagement and efficacy. Future studies should focus on developing culturally tailored apps and evaluating their long-term impact on health outcomes. mobile health, chronic diseases, Nairobi slums, diabetes management, user adoption Treatment effect was estimated with $\text{logit}(\pi) = \beta_0 + \beta_1 X_i$, and uncertainty reported using confidence-interval based inference.

Keywords: African Geography, Chronic Disease Management, Mobile Health Apps, User Adoption, Outcome Evaluation, Quantitative Research, Qualitative Inquiry

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