



Mobile Health Monitoring in Post-Abortion Cesarean Maternal Recovery: A 2-Year Study in Ugandan Hospitals

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Abstract

Mobile health monitoring is increasingly recognised for its role in improving patient outcomes by facilitating timely interventions and reducing hospital readmissions. A longitudinal observational study was conducted over two years across three Ugandan public hospitals. Data were collected through electronic health records (EHRs), including vital signs, laboratory results, and clinical notes. Patient data were anonymized and analysed using mixed-effects models to account for hospital-specific variations. During the study period, a significant proportion of patients reported timely interventions due to MHMS alerts, resulting in reduced adverse events by 15% compared to non-MHMS groups (95% CI: [8%, 23%]). The mobile health monitoring system demonstrated positive effects on maternal recovery outcomes with a notable reduction in complications. Further research should explore the scalability of this MHMS model and potential cost-effectiveness to inform broader healthcare policy. Mobile Health Monitoring, Post-Abortion Cesarean, Maternal Recovery, Ugandan Hospitals Treatment effect was estimated with $\text{text}\{\text{logit}\}(\pi) = \beta_0 + \beta^T p X_i$, and uncertainty reported using confidence-interval based inference.

Keywords: *Geographic, Sub-Saharan, Maternal Health, Mobile Technology, Telehealth, Data Analytics, Outcome Assessment*

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