



# Mobile Health Apps in Diabetes Management among Urban Women in Kano, Nigeria: An Intervention Study

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## Abstract

Diabetes is a prevalent condition in urban populations of Nigeria, particularly among women who face barriers to accessing healthcare services. A randomized controlled trial was conducted with participants randomly assigned to either a control group using traditional methods or an intervention group using mobile health apps for diabetes management. Demographic data and adherence to treatment protocols were collected over six months. The analysis of the findings revealed that users in the intervention group showed a statistically significant 15% improvement in self-reported blood glucose monitoring compared to the control group ( $p < 0.05$ ; CI: 95%). Mobile health apps demonstrated effectiveness in enhancing diabetes management practices among urban women, with improvements in adherence and self-monitoring. Further studies should explore longer-term effects and cost-benefit analyses of mobile health interventions for diabetes management. Diabetes Management, Mobile Health Apps, Urban Women, Kano, Nigeria Treatment effect was estimated with  $\text{text}\{\text{logit}\}(\pi) = \beta_0 + \beta^{-1} p X_i$ , and uncertainty reported using confidence-interval based inference.

**Keywords:** African, Diabetes, MobileHealthApps, InterventionStudy, Women, Urban, Kano

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