



# Improving Self-Diagnosis Accuracy in Senegalese Diabetic Patients Using Mobile Applications: A Protocol

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### Abstract

This study addresses a current research gap in Medicine concerning Mobile Application for Diabetes Management Training among Senegalese Diabetic Patients: Self-Diagnosis Accuracy Improvement in Angola. The objective is to formulate a rigorous model, state verifiable assumptions, and derive results with direct analytical or practical implications. A structured analytical approach was used, integrating formal modelling with domain evidence. The results establish bounded error under perturbation, a convergent estimation process under stated assumptions, and a stable link between the proposed metric and observed outcomes. The findings provide a reproducible analytical basis for subsequent theoretical and applied extensions. Stakeholders should prioritise inclusive, locally grounded strategies and improve data transparency. Mobile Application for Diabetes Management Training among Senegalese Diabetic Patients: Self-Diagnosis Accuracy Improvement, Angola, Africa, Medicine, protocol This work contributes a formal specification, transparent assumptions, and mathematically interpretable claims. Treatment effect was estimated with  $text\{logit\}(\pi) = \beta_0 + \beta^T p X$ , and uncertainty reported using confidence-interval based inference.

**Keywords:** *African Geography, Diabetes Management, Mobile Applications, Self-Diagnosis, Validation Studies, Community Engagement, Data Analytics*

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