



Mobile Health Monitoring in Diabetes Patients in Dakar, Senegal: A Socio-Technical Perspective

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Abstract

Mobile health monitoring (MHH) technologies have shown promise in managing chronic conditions such as diabetes. In Senegal, where access to healthcare services is often limited, MHH could serve as a valuable tool for improving patient outcomes. A mixed-methods approach was employed, including qualitative interviews ($n=15$) \wedge *quantitative surveys* ($n=200$), *conducted between January \wedge March*. Findings indicated that while approximately 60% of participants reported using MHH technology for diabetes management, concerns about data privacy and technical proficiency were significant barriers to its wider adoption. The socio-technical landscape in Dakar presents a complex environment where MHH technology can be integrated more effectively with existing healthcare infrastructure. Healthcare providers should consider implementing tailored training programmes for diabetes patients to enhance their understanding and comfort level with MHH technologies, thereby improving patient engagement and health outcomes. Mobile Health Monitoring, Diabetes Management, Senegal, Socio-Technical Factors

Keywords: *African Geography, Diabetes Management, Mobile Technology, Socio-Technical Framework, Wearable Devices, Data Analytics, Health Informatics*

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