



Telemedicine for Chronic Disease Management in Indian Rural Areas of Tanzania: An Evaluation of Remote Monitoring and Patient Satisfaction

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Abstract

The implementation of telemedicine in rural areas is gaining traction as a means to improve chronic disease management. In Indian rural areas of Tanzania, where access to healthcare professionals is limited and resources are scarce, remote monitoring technologies could offer a viable solution. A mixed-methods approach was employed, combining quantitative data from remote health monitoring devices with qualitative feedback from patients regarding their experience with telemedicine services. Remote monitoring revealed a significant reduction in hospital admissions by 20% among participants compared to baseline levels ($p < 0.05$). Patient satisfaction surveys indicated an overall positive response, with a mean score of 8 out of 10 for service quality. Telemedicine appears to be effective in improving chronic disease management outcomes and enhancing patient satisfaction in Indian rural areas of Tanzania, warranting further investigation and implementation in similar contexts. Given the positive findings, it is recommended that telemedicine services should be expanded into more Indian rural areas of Tanzania. Future research should explore cost-effectiveness and potential scalability. Treatment effect was estimated with $\text{text}\{\text{logit}\}(\pi) = \beta_0 + \beta_1 X_i$, and uncertainty reported using confidence-interval based inference.

Keywords: Tanzania, Geographic Access, Chronic Illness, Telehealth, Remote Monitoring, Patient Satisfaction, Digital Health Solutions

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