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A Case Study on the Adoption and Barriers to Utilisation of the Safer Deliveries Simulation Training Application Among Traditional Birth Attendants in Amhara Region, Ethiopia

M, e, k, d, e, s, T, s, e, g, a, y, e, ,, A, b, e, b, e, G, e, t, a, c, h, e, w

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Abstract

Traditional birth attendants are vital providers of maternal healthcare in rural Ethiopia, particularly where access to skilled birth attendance is limited. Mobile health applications present an opportunity to augment the training of these attendants in remote areas. The Safer Deliveries simulation training app is one such tool, but its integration into low-resource settings encounters substantial obstacles. This case study aimed to examine the introduction of the Safer Deliveries mobile application to traditional birth attendants in the Amhara Region of Ethiopia. Its primary objectives were to document the adoption process and to identify the principal facilitators and barriers affecting its ongoing use. A qualitative case study methodology was utilised. Data were collected via focus group discussions and in-depth interviews with a purposive sample of traditional birth attendants who had received the application. Observations of app use in community settings supplemented this. The data underwent thematic analysis. Initial receptiveness to the app's interactive, visual content was positive. However, sustained utilisation was constrained by several barriers. A dominant theme was technological access, with many participants citing unreliable electricity for charging devices and poor mobile network coverage for updates. Additional barriers included low digital literacy, a preference for local dialects over the app's official language, and an absence of structured peer-support networks. Although

mHealth applications offer potential for training, their effective adoption depends on addressing underlying technological and socio-linguistic challenges. Successful implementation requires strategies that look beyond the provision of software to include support for infrastructure and contextual adaptation. Future implementations should incorporate foundational digital literacy training, promote practical charging solutions, and develop robust offline functionality. Establishing peer-learning groups and exploring the integration of audio content in local languages are also advised to improve engagement and utility. mHealth, traditional birth attendant, simulation training, mobile application, Ethiopia, maternal health This case study provides practical evidence on the real-world barriers to mHealth adoption among traditional birth attendants in a rural African setting, informing more contextualised implementation strategies for digital training tools.