



Replicating the Digital Health Transition: A Study of Obstetric and Gynaecological Care in Urban Mali

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Abstract

The global shift towards digital health systems is promoted to improve healthcare delivery. Prior research in other regions outlines potential benefits and challenges. The specific applicability and outcomes within urban West African obstetric and gynaecological care remain less clear, warranting a replication study. This study replicated prior investigations into the digitalisation of clinical care. It focused on the adoption and perceived impact of digital health tools within urban obstetric and gynaecological services in Mali, assessing the transferability of existing findings to this distinct setting. A qualitative, multi-site case study was conducted across three major urban hospitals. Data were collected via semi-structured interviews with healthcare providers and clinical managers, supplemented by non-participant observation of clinical workflows. Thematic analysis employed a framework from prior studies to enable direct comparison. The replication confirmed several core themes from earlier research, such as improved data accessibility alongside persistent workflow disruptions. A key divergent finding was a pronounced theme of ‘digital exclusion’. A significant proportion of senior midwifery staff reported feeling marginalised by the transition, which was cited as a major barrier to effective implementation. The study confirms that the digital health transition in this setting reproduces familiar challenges while generating context-specific social dynamics. It underscores that technological adoption is not neutral and is mediated by local professional hierarchies and training disparities. Future implementations must incorporate tailored, inclusive training programmes addressing generational skill gaps. Policymakers should support phased roll-outs with continuous technical and social support to mitigate professional displacement and ensure equitable adoption.

digital health, replication study, obstetrics, gynaecology, Mali, qualitative research, implementation, professional hierarchies. This replication study validates and extends prior knowledge by documenting the critical role of local social context in digital health adoption, highlighting digital exclusion as a key barrier within urban West African maternity services.

Keywords: *Replication study, Digital health, Obstetric care, Sub-Saharan Africa, Implementation science, Health systems strengthening, Urban healthcare*

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