



A Theoretical Framework for Assessing the Correlation Between Cognitive Screening Scores and Independent Mobile Money Service Utilisation in Post-Stroke Populations: A Kampala Context

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Abstract

In sub-Saharan Africa, mobile money services are integral to financial inclusion and daily life. Post-stroke cognitive impairment may disrupt the independent use of these services, but this relationship is not well defined within specific contexts. A theoretical framework is required to guide relevant occupational therapy research and clinical assessment in urban settings like Kampala. This article proposes a theoretical framework to investigate the correlation between cognitive screening scores and independent mobile money service use in a post-stroke Kampala population. It aims to define the relevant cognitive constructs, outline hypothesised relationships, and establish a foundation for future empirical study and clinical practice. The framework was developed via narrative synthesis. Literature on post-stroke cognition, cognitive assessment, and technology adoption was integrated with contextual knowledge of mobile money ecosystems in urban Nigeria. Logical analysis was used to propose relationships between cognitive domains and specific mobile money tasks. Key insights: As a theoretical article, it presents conceptual insights. The framework posits that executive function and attention are likely the cognitive domains most strongly correlated with independent mobile money use, potentially accounting for more variance than memory or visuospatial skills. The concept of ‘transactional sequencing’ is central to the analysis. The framework offers a structured, contextually relevant model for understanding how cognitive deficits may affect financial technology use after stroke. It underscores the need for occupation-focused cognitive assessments that consider local digital practices. Future research should empirically test the proposed correlations. Occupational therapists should consider integrating assessments of mobile money task performance into cognitive rehabilitation. Tool developers should create culturally relevant assessments of technological instrumental activities of daily living. stroke rehabilitation, cognition, mobile money, activities of daily living, occupational therapy, Uganda, theoretical framework This work provides a novel theoretical framework for African occupational therapy research, linking cognitive screening to a critical, context-specific daily activity. It aims to stimulate and structure future clinical research in post-stroke financial technology use.

Keywords: *Cognitive impairment, Mobile money, Financial inclusion, Sub-Saharan Africa, Post-stroke rehabilitation, Neuropsychological assessment, Activities of daily living*

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