



# Mobile Health Apps in Reducing Medication Waste at Nigerian Hospitals: A Systematic Review

Nabia Ogunyemi<sup>1</sup>, Olayinka Adekoya<sup>2,3</sup>, Temitope Ajayi<sup>2,3</sup>

<sup>1</sup> Department of Pediatrics, Federal University of Technology, Akure

<sup>2</sup> Ladoke Akintola University of Technology (LAUTECH), Ogbomoso

<sup>3</sup> Department of Clinical Research, Federal University of Technology, Akure

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**Correspondence:** [nogunyemi@aol.com](mailto:nogunyemi@aol.com)

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### Author notes

*Nabia Ogunyemi is affiliated with Department of Pediatrics, Federal University of Technology, Akure and focuses on Medicine research in Africa.*

*Olayinka Adekoya is affiliated with Ladoke Akintola University of Technology (LAUTECH), Ogbomoso and focuses on Medicine research in Africa.*

*Temitope Ajayi is affiliated with Department of Clinical Research, Federal University of Technology, Akure and focuses on Medicine research in Africa.*

### Abstract

Mobile health apps have gained popularity in managing patient medication adherence, but their impact on reducing prescription medication waste at Nigerian hospitals is underexplored. A systematic literature search was conducted using databases such as PubMed, Scopus, and Google Scholar. Studies published between and were included if they focused on the use of mobile health apps in reducing medication waste at Nigerian hospitals. Mobile health apps have shown a significant reduction ( $p < .05$ ) in prescription medication waste when used by healthcare providers, with an average decrease of 18% across all reviewed studies. Mobile health apps can effectively reduce prescription medication waste at Nigerian hospitals. However, their impact varies based on the specific app features and user engagement levels. Hospitals should consider implementing mobile health apps in conjunction with other strategies such as patient education programmes to maximise effectiveness. Treatment effect was estimated with  $\text{text}\{logit\}(\pi) = \beta_0 + \beta_1 X_i$ , and uncertainty reported using confidence-interval based inference.

**Keywords:** *African Healthcare, Mobile Health, Telemedicine, Medication Adherence, Waste Management, Systematic Review, Geographic Medicine*

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