

## MHEALTH APP ADOPTION: INVESTIGATING THE EFFECT OF PSYCHOLOGICAL NEED SATISFACTION AND MHEALTH APP USE BEHAVIOUR OUTCOMES AMONG PERI-URBAN DWELLERS

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[dx.doi.org/10.18374/JABE-24-1.8](https://doi.org/10.18374/JABE-24-1.8)

### ABSTRACT

*This research emphasizes the importance of everyone having access to free basic healthcare to save lives. Mobile health (mhealth) emerges as a key technological solution to combat healthcare inaccessibility. Using the extended Unified Theory of Acceptance and Use of Technology (UTAUT2), we explore how mhealth apps are adopted and their impact on psychological well-being. Our findings show that factors like performance expectations, ease of use, and meeting psychological needs significantly influence the intention to use mhealth apps. Using these apps positively affects well-being. This study provides insights that can be useful both in theory and practice.*

**Keywords:** Mhealth, Mobile Health, UTAUT2, Smartphones, Technology Adoption

### 1. INTRODUCTION

According to the World Bank and World Health Organisation (2017), at least half of the world's population cannot access basic health services, and every year, a large number of families are forced into poverty because they have to pay for health care. One technological innovation that offers ways to address the inaccessibility to health care is mobile health (mhealth). Mhealth refers to the use of mobile phones or smart phones or applications to offer health-related services (Yuan et al., 2015; Zhang et al., 2017). In this study, we focus on mHealth apps — “health and fitness related applications running on mobile devices such as smart phones and tablets” (Leijdekkers & Gay, 2013, p. 111). Mhealth apps have seen an upsurge in popularity in recent years, most likely due to the increased use and availability of affordable smartphones (Byambasuren et al, 2019; Hu, 2019). The current number of mhealth apps stands at approximately 350,000 across the major app stores (Byambasuren et al, 2019). Besides, with the increased costs associated with health monitoring (Duarte & Pinho, 2019), and the fact that most of these mhealth apps are free to use, it is the most efficient way to provide healthcare service to remote and resource poor settings in developing countries.

Mhealth apps are a step towards ubiquitous health care, i.e. access to health care anywhere, enabling patients with chronic conditions to use mobile devices and wireless sensors to self-manage their condition (Oppong et al., 2021; Leijdekkers & Gay, 2013). Moreover, mhealth apps can be customised to suit the requirements of the user's condition making it possible for them to use it in the comfort of their home, workplace, or even on the move. Furthermore, the use of mhealth apps can be adopted as a healthy lifestyle or medium to self-manage chronic conditions (Free et al., 2013). Therefore, given that mhealth apps can be advantageous in helping attain the United Nations Sustainable Development Goal Number 3 (to ensure healthy lives and promote well-being for all at all ages) it is essential to holistically understand the technological, psychological and behavioural antecedents to their adoption and how the apps effectively improve patients' health outcomes, which subsequently improves its diffusion of mhealth technology.

To date, however, the focus of the mhealth literature has been on ways in which the technology can enhance health services, such as adherence to treatment; disease surveillance; emergency medical response; health promotion and point-of-care support; improve prenatal and neonatal health outcomes