7th Bangladesh Conference on Industrial Engineering and Operations Management
December 21-22, 2024
Publisher: IEOM Society International, USA DOI: 10.46254/BA07.20240201
Published: December 21, 2024

AI-Powered Mobile Health Apps for Safe Medication Management: A Smart Solution to Self-Medication Risks in Growing Markets

Nipa Akter[1*], Nawazish Mubtasim[2], Mir Farhana Jarin Alam[3], Mahdi Hassan Noor Asif[4], Md Shamsul Alam Pranto[5]
Undergraduate Student, Department of Computer Science
American International University-Bangladesh
Dhaka, Bangladesh
[1]23-51573-2@student.aiub.edu,[2]22-47543-2@student.aiub.edu,
[3]22-47568-2@student.aiub.edu,
[4] 22-47345-2@student.aiub.edu,[5]22-50000-3@student.aiub.edu

Md. Mortuza Ahmmed
Associate Professor, Department of Mathematics
American International University-Bangladesh
Dhaka, Bangladesh
mortuza@aiub.edu
[*]**Corresponding author: 23-51573-2@student.aiub.edu**

Abstract

Self-medication carries inherent risks, especially in rapidly growing markets where access to healthcare is limited. When individuals manage their own medication, the possibility of mistakes increases. A promising solution involves AI-powered mobile health apps that assist users in managing their medications safely and accurately. This study aims to explore public perceptions of AI's role in facilitating safe self-medication. In a survey consisting of 14 questions, one key inquiry was whether respondents believed AI could enhance medication management. The results revealed that 82.1% of participants agreed, while 14.3% strongly agreed, highlighting a significant level of trust in AI-powered mobile applications to mitigate the risks associated with self-medication and enhance safety. Moreover, the analysis suggests that these AI-driven apps can effectively reduce self-medication risks by improving adherence to prescriptions and instructions. This research is particularly relevant in regions, such as emerging markets, where healthcare services are often limited or difficult to access. Ultimately, this study underscores the potential impact of AI in promoting safe medication practices.

Keywords:

Self-medication, AI-powered mobile Apps, Medication management, public perception, Emerging markets

Biography

Nipa Akter, a student at the American International University-Bangladesh, is currently pursuing a Bachelor of Science in Computer Science and Engineering (CSE). Her academic journey is marked by notable accomplishments. In Fall 2023-24, she was honored with the Best Poster Award in the Physics Poster Contest organized by the

Department of Physics in association with the AIUB Research Development Club. Additionally, in June 2024, she actively participated in the seminar and workshop on The Advancement of Physics Research for Engineering Students at the American International University-Bangladesh, earning a certificate of participation. These experiences have deepened her interest in physics and strengthened her commitment to academic excellence in her BSc studies.