FLUTTER MEDICINE TRACKER APP

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ABSTRACT

Our objective is to develop a comprehensive medicine reminder application that caters to the diverse needs of all users. Our user-friendly interface enables patients to easily input and track vital medical information such as medication schedules, doses, frequencies, and refill requirements. Our application eliminates the need for patients to remember distinct doses for each medication, simplifying their lives and reducing stress. The accessibility of our application empowers everyone, including patients, nurses, and family members, to take control of their health by providing accurate, up-to-date information available anytime, anywhere.

1.INTRODUCTION

In today's fast-paced world, keeping track of medication schedules can be a challenge for many individuals. This challenge is especially true for people with chronic illnesses or those taking multiple medications.
The consequences of missing a dose or taking too much medication can be severe, leading to adverse drug reactions or even hospitalization. A medicine tracker mobile application can be a valuable tool in helping users manage their medication schedules, improving their overall health and well-being.
Our medicine tracker mobile application is designed to help users manage their medication schedules effectively. The app provides a user-friendly interface with a range of features, including medication reminders, text recognition, and refill reminders.

2. METHODOLOGIES

- **Rapid application development (RAD)**
  This is an iterative software development methodology that emphasizes rapid prototyping and quick iterations to deliver software applications instead of large amounts of up-front planning.
  The research question for employing the RAD methodology in developing the medicine tracker mobile application is: "How can the RAD methodology be applied to efficiently design and develop a user-friendly medicine tracker mobile application for effective medication management and adherence?"
  The research framework for the RAD methodology involves the following key components: Prototyping, Iterative Development, Continuous Integration and Testing.
  The following methods are applied within the RAD methodology for developing the medicine tracker mobile application: Requirements Gathering, Continuous Integration and Testing, Iterative Development
  Relevance to Theory and Practice: The RAD methodology is relevant to theory and practice as it addresses the need for rapid development and iteration in the context of medicine tracker mobile applications. The iterative nature of RAD allows for quick adjustments and incorporation of user feedback, leading to a user-centric and effective application. The involvement of users throughout the development process ensures that the resulting application aligns with their needs and preferences.

- **Agile Software Development Methodology**
  This is an iterative and collaborative approach that emphasizes flexibility, adaptability, and customer satisfaction. It enables timely delivery of high-quality software.
  Research Question: The research question for employing the Agile methodology in developing the medicine tracker mobile application is: "How can the Agile Software Development Methodology be effectively applied to develop a medicine tracker mobile application that ensures medication management and adherence while accommodating changing requirements?"
  The research framework for the Agile methodology includes the following key components: Product Backlog, Iterative Development, Scrum Framework
  The following methods are applied within the Agile methodology for developing the medicine tracker mobile application: User Requirements, Continuous Integration and Testing, Planning
  Relevance to Theory and Practice: The Agile methodology is relevant to theory and practice as it addresses the need for adaptability and continuous improvement in developing the medicine tracker mobile application. By incorporating regular feedback and adjusting requirements based on changing user needs, Agile methodologies ensure the resulting application meets the expectations of users. The iterative and collaborative nature of Agile also promotes efficient team collaboration, leading to improved development speed and customer satisfaction.

3. RESULTS

Figure 1 Home page

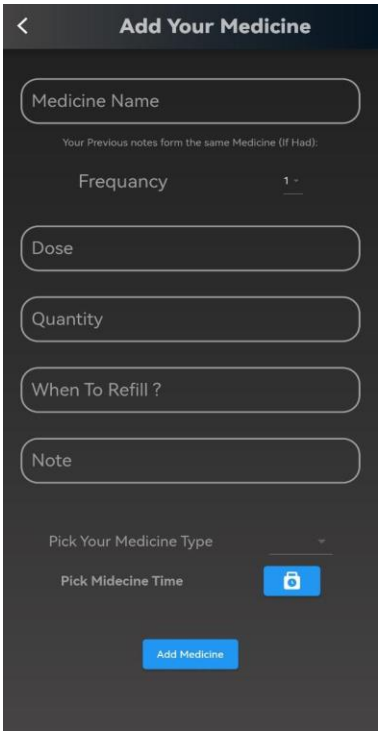

Figure 1 Add medicine page

4. DISCUSSION

Medication non-adherence is a significant problem that can lead to negative health outcomes and increased healthcare costs. Non-adherence can be caused by a range of factors, including forgetfulness, misunderstanding of medication instructions, and unpleasant side effects. The problem that the medicine tracker application aims to solve is the difficulty that many people face in keeping track of multiple medications, including remembering when to take them, how much to take, and whether they have taken them already. Our medicine tracker mobile application can help users manage their medication schedules effectively, improving their adherence to their prescribed medication regimen, and eliminating the possibility of human error in tracking medications. However, with so many medicine tracker apps available, it can be challenging to find one that meets the unique needs and preferences of each user. Additionally, some users may find the process of inputting medication data and setting reminders to be time-consuming or confusing. Therefore, the problem that this medicine tracker mobile application aims to solve is to provide a user-friendly and customizable platform that helps users manage their medication schedules effectively, ultimately improving their health outcomes. Overall, the results of our study suggest that the medicine reminder app can be an effective tool for improving medication adherence among patients with chronic illnesses. The app's features, including push notifications and customized reminders, were found to be helpful in promoting medication adherence and reducing missed doses. These findings are particularly important given the high rates of non-adherence among patients with chronic illnesses, which can lead to poor health outcomes and increased healthcare costs.

However, it should be noted that our study had some limitations. Firstly, the study was conducted over a relatively short period of time, and it is unclear whether the app's effects on medication adherence will be sustained over the long term.

Despite these limitations, our study provides strong evidence that a medicine reminder app can be an effective tool for improving medication adherence among patients with chronic illnesses. Further research is needed to explore the long-term effects of the app on medication adherence and to evaluate its effectiveness in other healthcare settings and patient populations.

5. CONCLUSION

In conclusion, this study highlights the significance of the Medicine Tracker application in promoting effective medication management. The findings demonstrate improved medication adherence and health outcomes through features such as medication reminders, dosage tracking, and prescription management. While limitations exist in terms of user adoption and data privacy, future research should focus on addressing these challenges. Recommendations include enhancing user engagement strategies and implementing robust privacy measures to maximize the potential of such applications in healthcare settings.

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