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THE IMPACT OF MOBILE MEDICAL APPLICATIONS ON MEDICAL ACTIVITIES

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ABSTRACT

In recent years, a slew of mobile medical APPs have appeared in China, allowing for more interactions between patients and doctors. It facilitates the exchange of medical information and services in a more timely and convenient manner. Despite various disadvantages, mobile medical applications increase patient medical experience, doctor-patient relationships, the doctor's self-price value, and contain a significant economic value. The medical pattern will be drastically transformed in the future, especially for out-patients, as laws and regulations improve, market competition increases, and technology advances.

Keywords -Medical Activities; Doctor-Patient Relationship; Mobile Medical Application, Summary of discharge, mHealth app, post-discharge, personalised health, and mobile healthcare app

1. INTRODUCTION

With the increasing popularity of smart phones in India, mobile phone APPs are becoming more integrated into the daily lives of smart phone users. Medical activities carried out by a mobile phone were known as mobile medicine after the introduction of medical APPs **[1]**. Mobile medicine, as a new thing, has wreaked havoc on regular patients, medical practitioners, and doctor-patient relationships,

among other things. And, just like a coin has two sides, there were some issues that had never been seen before.

2. Rapid Development of Mobile Medical Applications

With the rapid growth of India's mobile internet technology, a plethora of mobile medical APPs have emerged, providing patients with more easy and timely access to medical information and services. India Mobile Medical Market Size Increased India Country Between 2021 and 2012, a rise of day by day over the previous year. Currently, there are more than 2021 domestic mobile medical APPs. They can be split into four groups based on their functions. pharmaceutical products application providers, such as some online pharmacy sales platforms; applications designed for medical professionals, such as a variety of applications from domestic well-known medical website DXY, such as Tumor Time and Cardiovascular Time; applications satisfying the demand of patients, such as a variety of applications from domestic well-known medical website DXY, for example, Tumor Time and Cardiovascular Time; applications satisfying the demand of patients, such as a variety of applications from domestic well-known medical website DXY, for example, Tumor. Appointment registration and medical advice, consultation, and review services platform applications from well-known hospitals, such as Medical College Hospital online registration platform and Hospital online registration platform. The application that meets the needs of patients is at the top of the download list. Patients today expect direct connection and information exchanges with professional doctors or well-known specialists, especially since that health and medical information is more readily available on the Internet.

3. The Benefits And Value Of Mobile Medical Applications

3.1 IoT Device

A sensor to accept data.

It transmits data to datacenter via network layer.

It can process the data and make decision.

Serves an use case.

3.2 Smartphone

Yes, It has a dozen of sensors.

Camera, GPS, Proximity sensor, Accelerometer etc.,

Yes, It has connection to Internet.

Oh yes, it can process lots of data.

Well, to list a few, personal emergency response, fitness tracking, GPS based guidance etc.,

3.3 Mobile Application Features include:

Access Content

Users

Registration

Login

Logout

Account View & Update □

Create, Retrieve, Update and Delete - (C.R.U.D.)

Content (Multiple Content Types)

Comments

Get the data from data base once it is saved from mobile device.

3.4. System Architecture Diagram

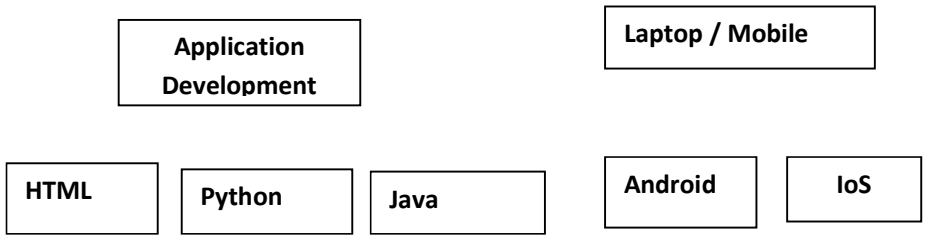

Figure 1: Block diagram

Figure 1 Demonstrates the general framework created for the construction of the suggested app. Active feedback and iteration are supported by the Ionic framework. One of the primary goals of the study was to validate the prototype and demonstrate its complete clinical potential by distributing data via a variety of mobile devices and laptop computers. Discusses the necessity for information artefacts to comprehend the intended and unforeseen consequences of design and development **[1]**. For this project, the structured design and development-based initiation solution from **[2]** is used. • National, local, and regional guidelines and best practises were investigated for standard discharge summary • Important or relevant patient information was determined through study and validation from clinical experts.

4. Application programming interfaces

Application programming interfaces (APIs) were designed based on the relevant information to be shown on the mobile application. Design wireframes were created based on feedback from clinical experts, and a cross-platform mobile application was developed using the wireframes and APIs. Outpatient services have become one of the most challenging and painful experiences for patients as a result of this process As a result, applications that reduce patient demand are one of the solutions to this vexing problem. Our hospital, for example, is ranked as the fifth best comprehensive hospital in the country. The daily outpatient service for breast surgery serves over 500 people; on average, each doctor must inquire about 150 people, and each patient's visit lasts less than 10 minutes. This situation is even worse for those majors with a high disease incidence rate. These programmes enable patients to complete procedures at home that would otherwise take a full day at a large hospital **[3]**.

The flexibility of mobile medical applications has strengthened the relationship between doctors and patients, in addition to improving the patient's medical experience. In the real world, a doctor must answer questions from a large number of patients in a short amount of outpatient time and write prescriptions or treatment plans. As a result, the lovely, the doctor-patient connection can be a near-impossible task, which frequently results in medical complaints. The mobile medical application, on the other hand, consumes the doctor's spare time, which might be the period between two surgeries, off work hours, or other times when the doctor has enough time to answer inquiries and can also choose which question of interest to respond. After receiving the response, the doctor may resume operations, and the patient's questions can be followed up on after surgery. Even if this doctor does not respond in a timely manner, another doctor in the same field will. The patient's questions can be confidently answered, hence the patient's mood is pretty calm. Second, the majority of mobile medical apps are invitation registration apps. For example, only large hospitals' attending and above-level doctors are eligible for the application, and all doctors must be strictly certificated to confirm their authenticity and professionalism. Third, depending on the patient's level of satisfaction, the doctor's work units, education background, and other factors, patients can choose any doctor online to answer their query. Patients' satisfaction with online inquiries is substantially higher than that of outpatients in real clinics, thanks to the addition of qualified specialists and the grant of patient choice privilege. Mobile medical applications also create jobs for the enterprise, improve the doctor's economic income. The cost of outpatient registration in large hospitals **[4, 5]**.

5. Mobile Medical Apps: The Benefits And Dilemma

Despite the fact that smart phones have become extremely popular in major cities. The popularity of smart phones and mobile medical applications, on the other hand, is still undeveloped among the elderly and in rural areas. It is impossible for low-educated people, in particular, to finish the inquiry online using medical applications. Second, the growth of mobile health is inextricably linked to the traditional concept of health consulting. According to popular belief, only laboratory examinations and prescriptions require payment; nevertheless, additional medical services, such as answering inquiries, advising treatment plans, explaining examination findings, and so on, should be free or charged at a minimal rate. The progress of mobile medicine has been hampered by these realities and viewpoints.

Doctors in large hospitals are extremely busy, which has an impact on the professional level of medical application interrogation. The larger the hospital, the less time doctors have. This is especially true for nationally recognised experts whose schedules are jam-packed with conferences and medical activities, and who are concerned of not having enough time to answer inquiries online. The bulk of doctors who have signed up for a mobile medical app should be in their early thirties. Objectively, it has the potential to degrade the professional level of investigation. Second, because the online question and response process is virtual, it is impossible to rule out the potential of a young doctor or a graduate student answering questions instead of a registered doctor. Finally, due to some patients' low levels of education, the interrogation procedure can sometimes cause the condition or treatment to be delayed. It also leads to low-level, recurrent interrogation and medical resource waste. The government now supports Internet Plus, a programme that encourages the development of mobile medical applications. However, in the early phases of development, relevant laws and regulations are lacking, and over 2000 applications with identical functions have appeared, resulting in a fierce competition for certified medical practitioners and patients. And, in most cases, the homogeneity is severe due to the lack of particular characteristics of these applications. The doctors and patients wasted too much energy and time by registering too many times.

6. CONCLUSION

Mobile medical applications have a lot of potential as a new Internet baby. Although some concerns remain, such as the traditional value concept, virtual interrogation's difficulty in ensuring quality, the profit model's unpredictability, and so on, in order to improve the patient's medical experience, the relationship between doctors and patients, the doctor's self-price value, and containing the massive data, it is necessary to improve the patient's medical experience, the relationship between doctors and patients, and the doctor's self-price value. Mobile medical applications have a lot of potential in terms of commercial value. The medical pattern will be drastically transformed in the future, especially for out-patients, as laws and regulations improve, market competition increases, and technology advances.

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