Abstract Synergy

MIRA

Over 450 million people worldwide are suffering from diabetes. The expected increase worldwide is 51% over the coming 30 years, and it is 143% for Africa alone. Thus, this is a significant problem around the world. In the low- and middle-income countries, the diabetes prevalence has been rising rapidly over the last number of years. For diabetic patients, it is essential to have regular follow-ups in the hospital to check on their blood sugar levels, cardiac health and whether they are following a balanced diet, but this is challenging to do regularly in developing countries. This project aims to develop a solution for a home monitoring app for chronic illnesses, diabetes and hypertension. The app, known as 'MIRA', allows patients to input their blood pressure, blood sugar levels, and heart rate. MIRA will operate as a connection point between the patients and the clinician so that the clinician will be able to see the patient's results in an easy-to-read manner. Patients also have the option to chat with their clinician to get quick advice. With this app, all patients can be monitored continuously without having to travel to the hospital. This will help to reduce the number of patients being lost to follow-ups due to the disconnection between the clinician and the patients. MIRA provides a doctor and a patient view, and both can see the history of the patient's condition. To fill up the design reality gap, we carefully choose our colours, icons and visuals to not conflict with the local cultural aspects of Sudan. We chose Sudan because of its high diabetes prevalence of 17.9%. MIRA is an Android app due to the high mobility in Sudan and that 91.4% of the phone users have an Android phone.