



Managing Diabetes with Smart Apps

Healthcare organisations have now created apps, which act as a companion tool for reminders and alerts



By: Dr. Sanjiv Agarwal

The number of people with diabetes is increasing in most countries. According to International Diabetes Federation Atlas 2015, approximately 415 million adults globally have diabetes; and this number will rise to 642 million by 2040. In India, an estimated 69.2 million people were diabetic in the year 2015, which as per the WHO assessment, stood at 63 million in the year 2013. Diabetes prevalence has grown at an alarming rate in India with WHO estimating the number to be 100 million by 2030.

Diabetes prevalence puts a large section of the Indian

population at an increased risk of heart disease, kidney problem & multiple organ failure. Therefore, meticulous diabetes management is essential for reducing the occurrence and progression of diabetes complications in patients.

New technologies for better management

Today, healthcare providers have started adopting and developing new technologies to improve the quality of care provided by them as well as boost patient health outcome. Technologies like mobile health apps, remote monitoring tools, telemedicine systems etc. are being developed to improve patient and doctor connectivity. Chronic disease management

has become an important subject for the healthcare providers because the out-of-pocket spend on these diseases and their related complications is increasing year on year. A large number of hospitals and healthcare organisations are adopting digital platforms aimed towards chronic disease management using smartphones, wireless devices etc. to improve treatment outcomes.

This hi-end innovation allows doctors to gather data about patient behavior and symptoms, develop a customised care plan and intervene in case of deviation from the prescribed care plan. These technology-driven services also enable the patient to undergo a lifestyle modification by controlling





his/her diet, medication and exercise. From remote patient monitoring devices to health apps and from Electronic Medical Records to glucose monitoring, technology has played a significant role in creating the new digital health ecosystem.

Role of smart phones

Smartphones have become a part of our daily lives. They are being utilised for everything from checking emails to posting updates on social media and even tracking a patient's health. This rapid innovation in healthcare technology has come as a boon for patients. Patients with chronic disease like diabetes can now self-manage (under clinical supervision) their condition at a click of a button. It has also directly improved both the patient and caregiver experience. In the era of smartphones and tablets, healthcare organisations are investing on technology that can help them stay connected with their patients 24x7. These healthcare apps act as mediators between patients and caregivers in various capabilities like an instant consultation, information aggregation,

fitness, medication reminders, monitoring and providing the second opinion etc. Apps are being developed in multiple regional languages to cater to a wider patient base and help hospitals/clinics increase their reach. In India, apps with the do-it-yourself model are less popular as compared to the ones that come with coaching model. The coaching/assisted model is popular because it allows nutritionists, doctors, trainers give support to help people reach their goals by improving adherence. Apps created by healthcare organisations also have a 24x7 support team to guide the user in real time.

Meeting requirements of both

Diabetes self-management tips are an important step towards better diabetes care. Healthcare organisations have created apps, which act as a companion tool for the patients for reminders and alerts (for checking BGL, BP, taking medication, doing exercise, tracking calorie intake etc.). Patients and authorised family members can easily visualise the trends, reports, care plan in easy to use interface.

Meanwhile, the physician too is provided with an app to monitor patient data in real-time and provide quick consultation over the app. This allows the physicians to stay up-to-date on their patient's health and provide timely care.

Further, to keep patients engaged in managing their condition, there are few apps which use algorithms and trained diabetologists/nutritionists to extract the exact calorie count of the image of the food uploaded by the patient. This clinical team verifies/calculates the calorie count along with carbohydrate, fat, and protein and shares it with the patient in real time. Apps with three-way interactive model – patient/family, physician and the 24x7 care team help in driving better treatment outcomes.

Managing a chronic condition like diabetes involves continuous hard work and perseverance, but the use of technology can make this process a lot easier. Smartphones and apps offer exciting possibilities that will potentially help fill the gaps in the current diabetes management system. **HBI**



About the author

Dr. Sanjiv Agarwal is the MD & Founder of Diabetacare, a diabetes management start-up. With over 20 years of entrepreneurial experience in the field of healthcare in India and the UK, he has a knack of understanding the healthcare needs of the consumer. The gaps and voids he noticed in diabetes management programs in India led him to establish Diabetacare, a service that utilises mobile technology to manage and monitor diabetes.

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