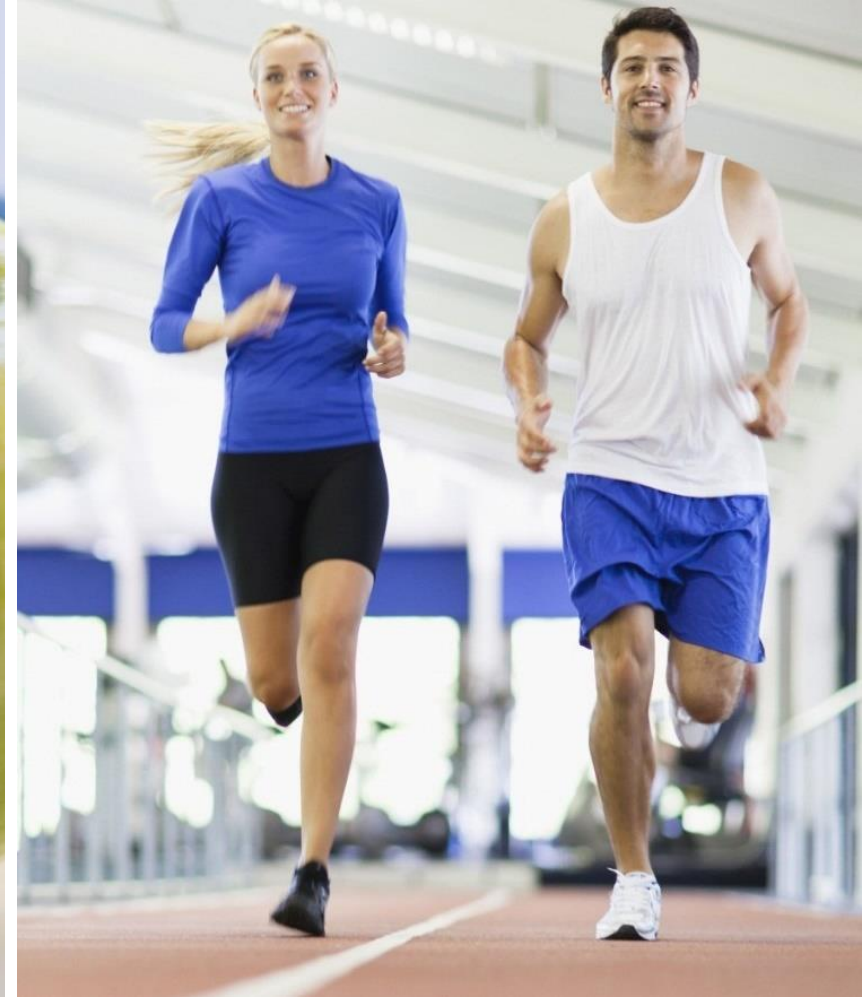




IMPLEMENTATION AND IMPACT OF DIGITAL HEALTH TECHNOLOGIES IN DIABETES MANAGEMENT

Presented By-
Nidhish Ojha
MBA 2nd year
IIHMR University

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INTRODUCTION

- By offering creative ways to better the management of chronic conditions like diabetes, digital health technology has revolutionized the healthcare industry. A increasing demand for effective and economical means of monitoring and helping people with this illness has arisen as the incidence of diabetes increases globally. Diabetes management has benefited greatly from the development of digital health technologies, which include tools, platforms, and apps.
- This article looks at how digital health technologies are applied and how it affects the treatment of diabetes. A few of the numerous technologies that will be examined are insulin pumps, smartphone applications, continuous glucose monitoring (CGM) devices, and web-based platforms. We will also examine the specific ways in which these technologies have altered the way diabetes is managed and the lives of those who have the condition.
- Digital health technology has significantly changed how people track the parameters.
- These technologies enable real-time blood glucose monitoring, automate insulin administration, make it simpler to keep track of one's diet and exercise regimen, and provide meaningful data analysis.

PURPOSE OF STUDY

- Enhancing the monitoring, management, and general care of diabetes population is goal of using digital health technology in diabetes management. By improving self-care capabilities, enabling remote treatment, and facilitating communication between patients and healthcare professionals, these technologies hope to deliver more precise and real-time data.

The Main Goal are as follows:

- Enhanced Monitoring
- Improved Self-Care
- Remote Monitoring and Telehealth
- Educating People and Creating Awareness

LITERATURE REVIEW

Youfa Wang, Jungwon, Jacob Khuri, Hong Xue, Bo Xie, Leonard A Kaminsky, and Lawrence J Cheskin	Treatment and Management of Diabetes and Obesity with Mobile Health Interventions: A Systematic Review of Systematic Reviews	Future research is necessary to determine the best methods and frequency of patient contact, improve message personalization, and improve usability of mHealth therapies, which puts a larger emphasis on sustaining efficacy over time.
Avivit Cahn , Amit Akirov , Itamar Raz	Using technology to treat diabetes and digital health	Patients and healthcare providers are creating vast amounts of data from a number of sources, including electronic medical records, insulin pumps, sensors, glucometers, and other wearable devices, as well as developing genomic, proteomic, metabolomic, and microbiomic data.
Neal Kaufman, Mark Clements, and Eran Mel	Digital Health Technology for Diabetes Prevention and Treatment	While other articles may discuss telemedicine (virtual patient-provider encounters) and methods for automated or aided insulin delivery, this article will focus mostly on treatments known as digital therapies.

AIM

The main AIM of Study is to analyze the impact of Digital Health Technologies in Diabetes Management

OBJECTIVE

- The objective is to provide tools and resources that help individuals monitor their blood glucose level.
- To improve the accuracy and reduce the need for finger stick test.
- To enable healthcare providers to remotely monitor and manage their patient with diabetes.
- To enable secure messaging, video consultation and data sharing fostering a more proactive and efficient relationship.



RESEARCH METHODOLOGY

- Primary data – A structured questionnaire sent through WhatsApp for assessment and evaluation to track the number of responses.
- A detailed report is prepared to analyze the data.

STUDY SETTING

STUDY DESIGN : Descriptive Cross-Sectional Study

STUDY POPULATION: Vidyaranyapura ,Bangalore

SAMPLE SIZE: 128

STUDY TOOL: Microsoft Excel, Google Scholar and
Watsapp

DATA ANALYSIS

After analyzing The Implication and Impact of Digital Health Marketing in Diabetes Management through questionnaires out of which I got 128 responses, Based on that the analysis has been made.



GRAPH

Gender

128 responses

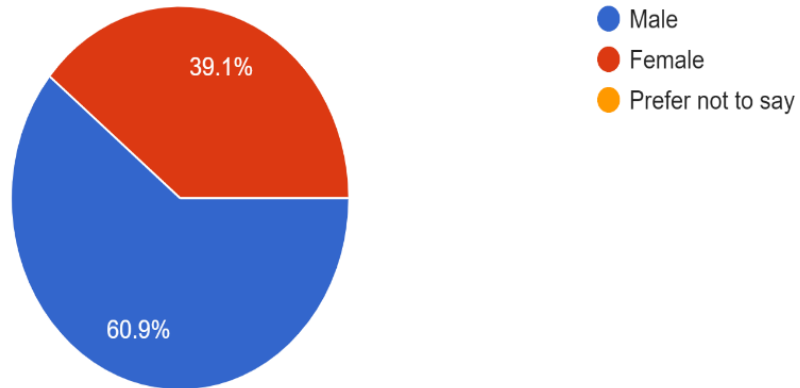


Fig 1: Gender of Respondent

Age

128 responses

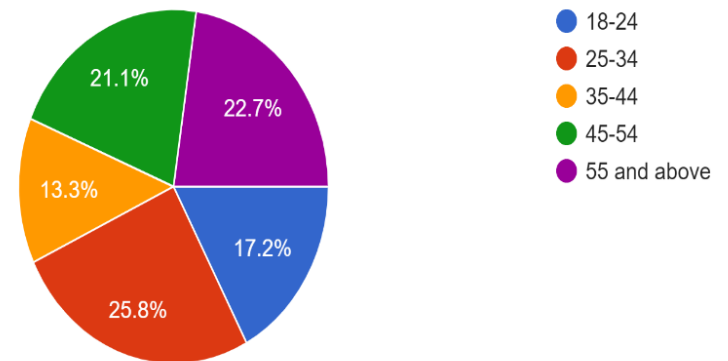


Fig 2: Age of Respondent

How longed have you been involved in diabetes management?

128 responses

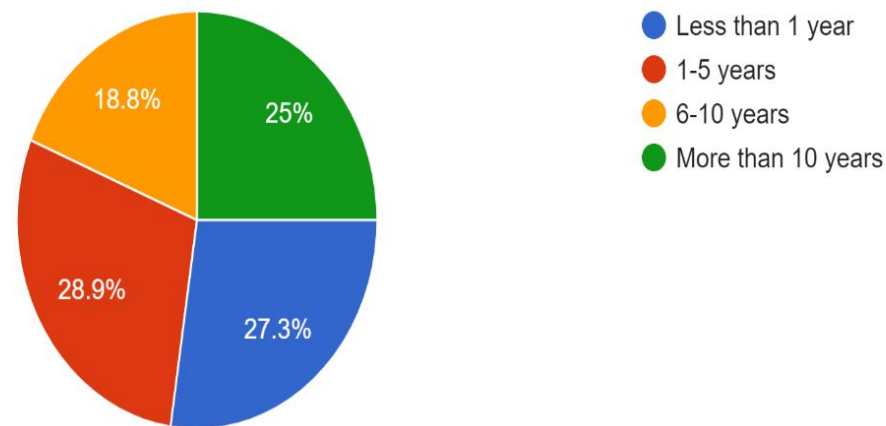


Fig 3: Respondent involvement in Diabetes Management

Have you used any digital health technologies for diabetes management?

128 responses

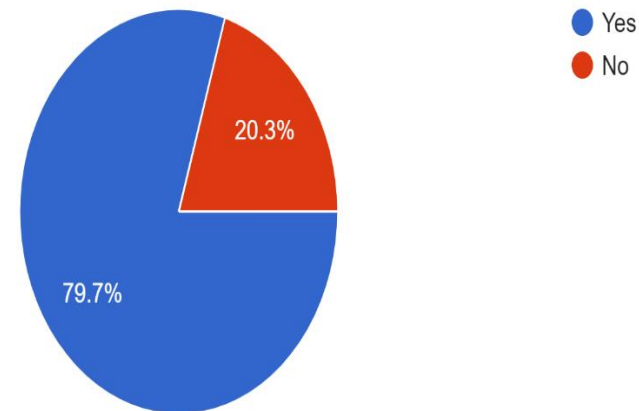


Fig 4: Respondent used Digital Health technologies fir Diabetes Management

Which digital health technologies have you used for diabetes management?

104 responses

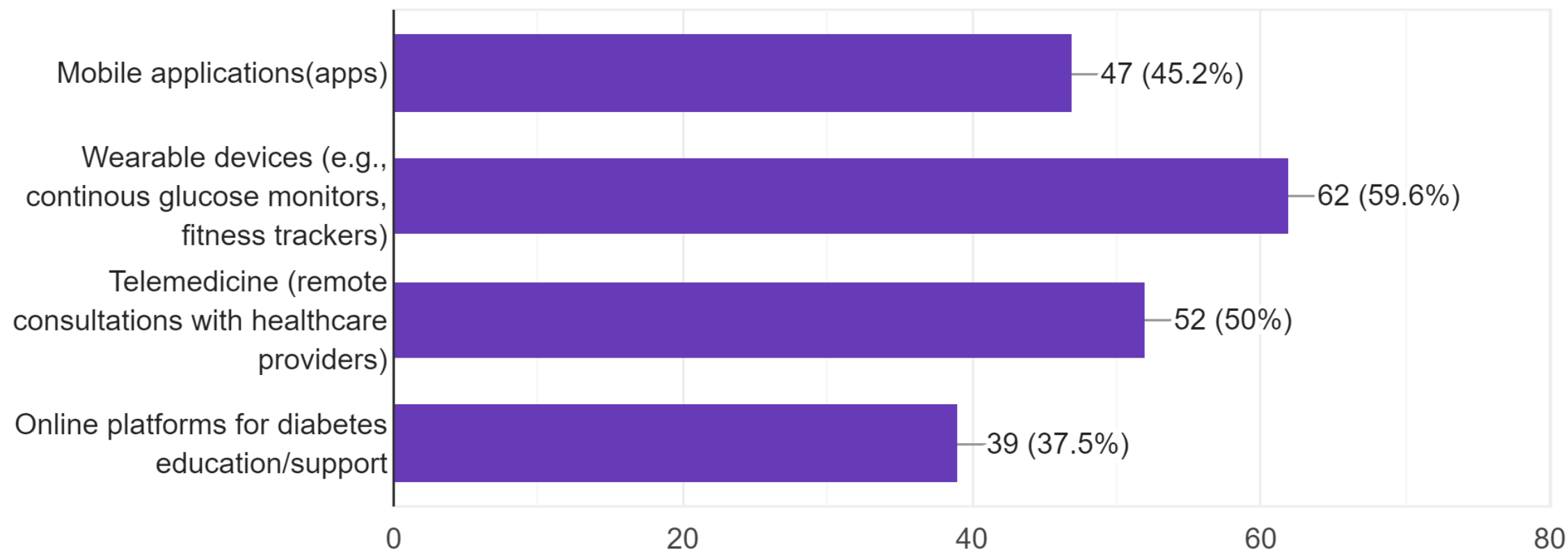


Fig 5: Different Digital Health Technologies used by Respondent

How frequently do you use digital health technologies for diabetes management?

104 responses

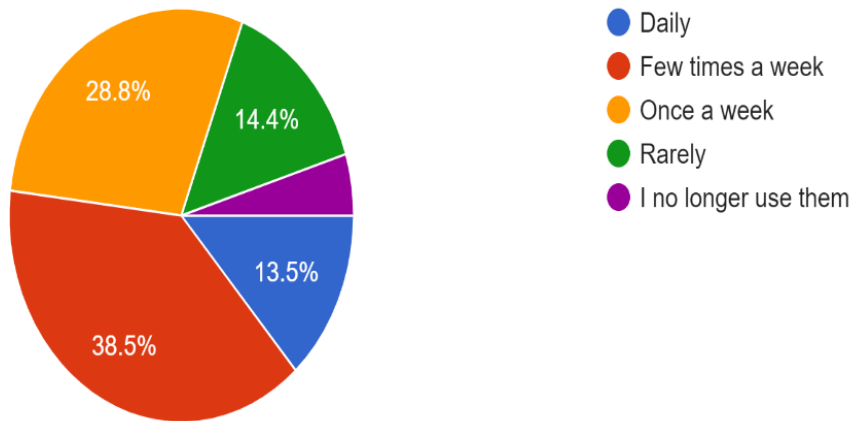


Fig 6: Respondent frequent use Digital health technology

What are the main reasons for using digital health technologies in your diabetes management?

104 responses

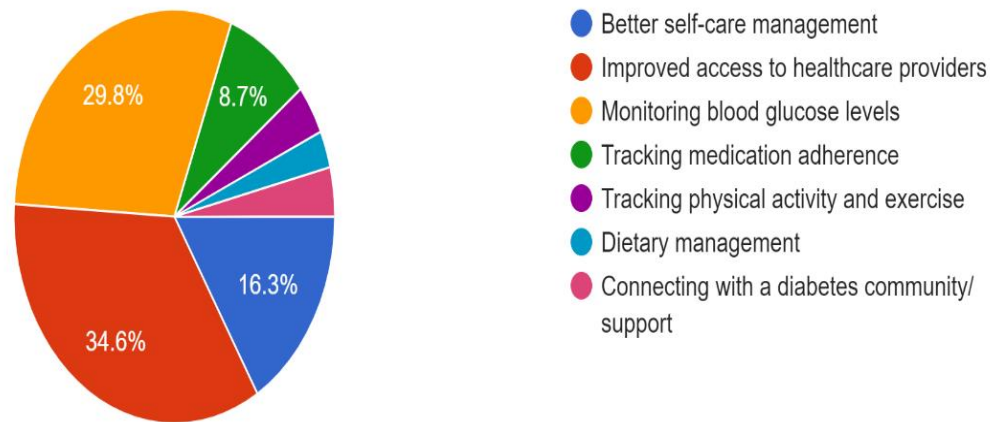


Fig 7: Reasons for Using Digital health technologies by Respondent

How do you feel digital health technologies have affected your engagement in diabetes self-care activities?
128 responses

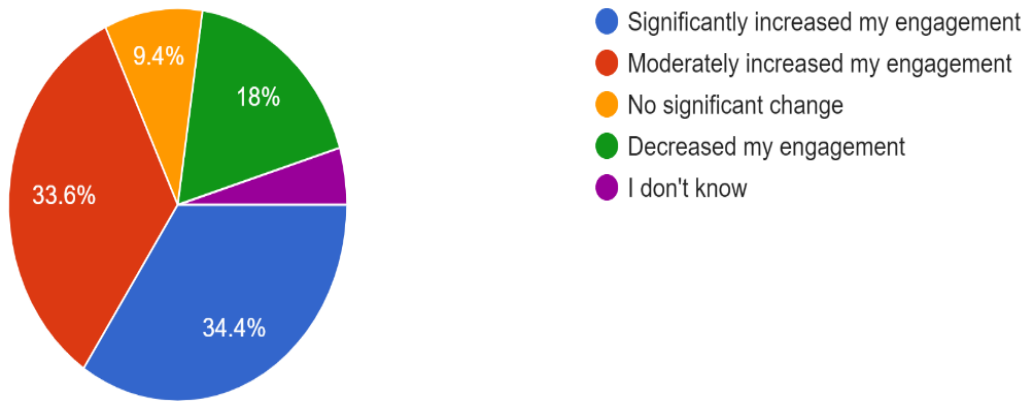


Fig 8:Respondent engagement in Digital health technology

How has the use of digital health technologies affected your communication and collaboration with healthcare providers?
128 responses

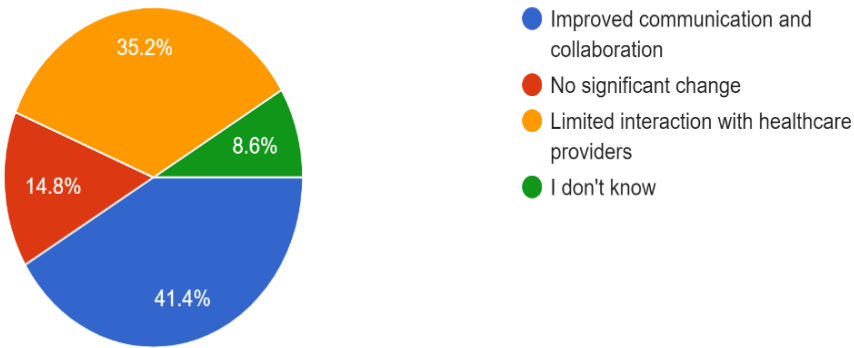


Fig 9:Respondent communication & collaboration with Healthcare provider through DHT

Have you observed any changes in your healthcare outcomes since using digital health technologies for diabetes management?

128 responses

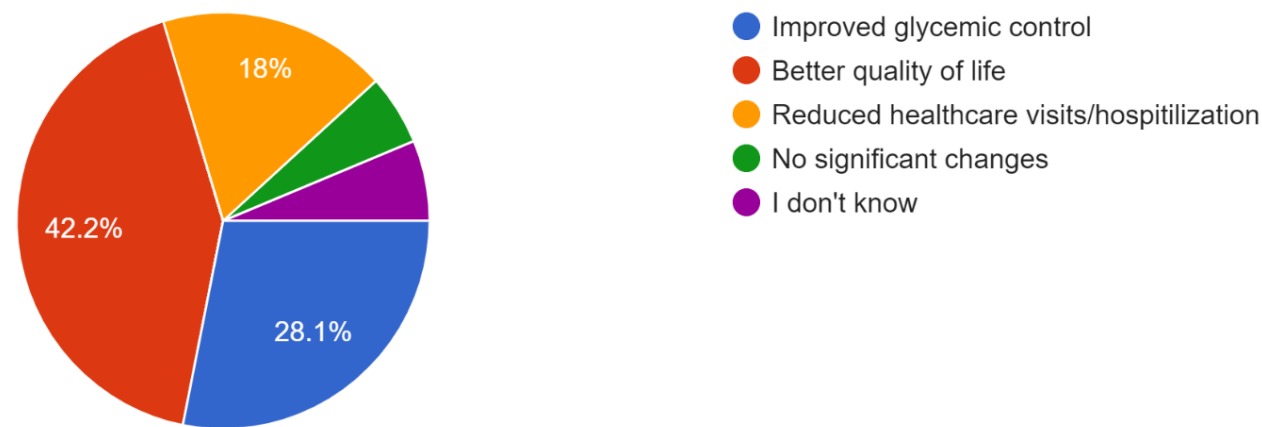


Fig 10: Healthcare outcomes using DHT for Diabetes Management

RESULT

I analyzed the assessment data of patients about the use of digital health technology among the responses I received, and the results are as follows. These results were obtained after asking the patients over that 79.5% of people have used digital health technologies for Diabetes management and 67% of the population find that using digital health technology has a better impact on health, and there are people, i.e. 41.7%, who think that it has filled the gap and improved the communication and made the collaboration with healthcare provider.



REFERENCE

1)Present and Future of Digital Health in Diabetes-

Sang Youl Rhee, Chiweon kim, Dong Wook Shin, Steven R.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7801756/>

2)Digital health technology and diabetes management

Avivit Cahn, Amit akirov, Itamar raj

<https://pubmed.ncbi.nlm.nih.gov/28872765/>

3)The effectiveness of digital health technologies for patients with diabetes

Sebastian Stevens, Susan Gallagher, Tim Abdrews, Liz Asgall-Payne, Lloyd Humphreys and Simon Leigh

<https://www.frontiersin.org/articles/10.3389/fcdhc.2022.936752/full>

Digital health and diabetes: experience from India

Jothydev Kesavadev, Gopika Krishnan, Viswanathan Mohan

<https://journals.sagepub.com/doi/full/10.1177/20420188211054676>

Impact of Health Information Technology Implementation on Diabetes Process and Outcome Measures
Ballard and David J

<https://digital.ahrq.gov/ahrq-funded-projects/impact-health-it-implementation-diabetes-process-and-outcome-measures#nav-publications>

Using Digital Health Technology to Prevent and Treat Diabetes
Neal kaufman, Mark clements and Eran Mel

<https://www.liebertpub.com/doi/full/10.1089/dia.2021.2506>

