ABSTRACT TITLE

Leveraging Artificial Intelligence (AI) to improve the quality of health consultation for people with Type 2 Diabetes

AUTHORS
Mridul Maheshwari, Annie Mattilda R, Chhavi Mehra

BACKGROUND AND AIM

In the past decade, AI has proven to enable precise diagnosis, improve accuracy and offer remote treatment. This study highlights the use of AI as a tool to effectively improve the quality of consultation for people with type 2 diabetes. Aim was to study this integrated system's effectiveness in reducing glycemic levels.

MATERIALS AND METHODS

This study analysed data of 110 participants over 90 days. 55 participants were observed using electronic medical records and native health coach advice (control) and compared against another set of 55 users who had additional integrated AI support (test). The test group had smart fitness devices, system recommended meal options based on vitals, food preference & AI generated goals. Along with it, a smart alerting mechanism based on users' plan adherence and progress was enabled for health coaches to connect with the users for course correction. The study aimed to retrospectively evaluate sugarfit's AI integrated approach as a tool to improve the quality of online consultations for health coaches.

RESULTS

The findings of the study showed that the Sugar.Fit's approach led to an average reduction in HbA1c from 9.2±1.4% to 7.1±0.9% with a reduction of 2.1±1.1 % compared to the control which saw a reduction to 7.1±1.0% from 8.5±1.6% with a drop of 1.4±1.0 %. AI model also saw a drop of weight from 76.5±12.3 kgs to 73.4±11.4 with a drop of 3.1±3.2 kgs while control saw a drop from 76.9±15.5 kgs to 74.2±15.4 with average loss of 2.7±3.3 kgs.

CONCLUSION

Diabetes management requires a holistic and multidisciplinary team approach. This model has therefore proved that leveraging technology in medical therapy can significantly improve quality of care.