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Disclosures

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Continuity of care between physician appointments for subjects with type 2 diabetes (T2DM) may be achieved in a scalable and affordable way by the application of patient-centric design and Artificial Intelligence (AI) systems. We validated an innovative platform to deliver a 16-week lifestyle coaching program exclusively through a mobile chat application (WhatsApp®) to 42 people with T2DM. The comprehensive approach was based on the American Association of Diabetes Educator's AADE7™ self-care behaviors that encouraged participants to acquire skills for better diabetes self-management through patient-centric design. The program covered healthy eating, physical activity, self-monitoring, medication adherence, problem-solving, reducing risk and healthy coping. It was an incremental and supportive program to the existing standard of care recommended by the treating physicians. The platform used a rule-based logic model to deliver pre-scripted content to participants. The baseline HbA1c was 9.06% (95% CI 8.69- 9.44), mean age and duration of diabetes was 48 and 7.7 yrs respectively. Mean daily interactive usage was 78%; 76% (n=32) of the participants completed the program with mean HbA1c reduction of 0.59% (CI 0.23-0.95, p=0.002) with nearly two-thirds (n=21) of subjects reporting a reduction in HbA1c with a mean reduction of 1.04% (CI: 0.63-1.44, p<0.01). This is the first proof of concept of a digital lifestyle intervention for subjects with type 2 diabetes in India which allows for complete replication using AI algorithms and personalization. Once deployed, this scalable AI platform will provide physicians with the ability to deliver ongoing diabetes care at an affordable cost. We conclude that patient-centric artificial intelligence through mobile chat improves glucose control in subjects with type 2 diabetes. At scale, this platform will enable physicians to achieve superior health outcomes at a practice and population level.