Poster

Targeted Diabetes Education Text Messaging Program Increases Requests for Certified Diabetes Educator Coaching and Improves Blood Glucose Trends

Jodi Pulizzi, RN, CDE; Jennifer Bollyky, MD; Anastasia Toles, MD, MPH; Michael Boulos, BEng; Jennifer Schneider, MD, MSc

Livongo Health, Mountain View, CA, United States

Corresponding Author: Jennifer Bollyky, MD Livongo Health 150 Evelyn Ave #150 Mountain View, CA, 94041 United States Phone: 1 206 403 8450 Fax: 1 206 403 8450 Email: jbollyky@livongo.com

Abstract

Background: Livongo Diabetes Program offers a cellularly enabled blood glucose monitoring system that measures blood glucose, captures contextual data (eg, relationship to food, exercise, illness), and stores this data in the cloud. Depending on the blood glucose value, personalized recommendations are delivered back through the glucose meter. Livongo members receive an unlimited supply of glucose test strips as well as access to a diabetes coaching team for questions, goal setting, and support for extreme glucose excursions. We have previously reported that members who establish contact with Livongo coaches experience an HbA1c reduction of 0.7% on average after 90 days with the program. We hypothesized that a targeted, text-message campaign designed to provide education about taking diabetes medications would encourage members to connect with Certified Diabetes Educator (CDE) coaches available to them by phone, email, or text.

Objective: To determine whether diabetes medication education offered to a targeted diabetes population via text messages will increase requests for telephonic coaching.

Methods: We examined a 4-week text message program offered to Livongo members with a calculated or self-reported HbA1c>7% to provide education about medication adherence. A total of 20 text messages were delivered during the weekdays over one month. Weekly topics included (1) Why are medications important? (2) Tips for remembering to take medications, (3) Medication myths, and (4) Overcoming barriers to taking medications.

Results: Out of the 2017 members offered the program, 514 (25%) opted into the program and 21 (1%) members opted out. Text messaging content triggered 38 personalized CDE coaching session requests, a rate of 7.4% of participating members, which is 85% more than the rate for members who did not participate in text message program (4%).

Conclusions: These preliminary findings suggest that engaging people with diabetes through a cellular-enabled blood glucose meter with real-time, personalized education in a targeted and personalized manner helps connect members with CDE coaches and may improve blood glucose control.

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KEYWORDS

diabetes; mobile health; blood glucose

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is displayed as an image in Figure 1 and as a PDF in Multimedia Appendix 1.

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Figure 1. Poster.

Livongo

Targeted Diabetes Education Text Messaging Program Increases Requests for CDE Coaching and Improves Blood Glucose Trends

Jodi Pulizzi, RN,CDE, Jenna Bollyky, MD, Anastasia Toles, MD,MPH, Michael Boulos, Jennifer Schneider, MD,MS

Background

Background Livongo Diabetes Program offers a cellularly-enabled blood glucose (BG) monitoring system that measures blood glucose, captures contextual data (e.g. relationship to food, exercise, illness) and stores this data in the cloud. Depending on the BG value, personalized recommendations are delivered back through the glucose meter.

Livongo members receive an unlimited supply of glucose test strips as well as access to a diabetes coaching team for questions, goal setting, and support for extreme glucose excu



We have previously reported that members who establish contact with oaches e erience an HbA1c reduction of 0.8% on average after 90 days with the program¹.

Objective

To determine whether diabetes education offered to a targeted population via text messages will increase requests for telephonic CDE coaching and improve BG control.



Oral Meds 72%

I CDE C

7.8%

Program

We examined a 4-week text message program offered to Livongo

We examined a 4-week text message program offered to Livongo members with a calculated or self-reported HbA1c >7% to provide diabetes education about medication adherence. Text messages were delivered during the weekdays and covered topics: (1) Why are medications important? (2) Tips for remembering to take medications (3) Medication Myths and (4) Ourcomplex barriers to taking medications

For participating members, we analyzed BG checking frequency, mean BG and frequency of hyper- and hypoglycemia during the 30 days prior to the program (Pre) and 30 days after the program

(4) Overcoming barriers to taking medications



Methods

(Post)





Out of the 2,017 members offered the program, 514 (25%) opted in and Out of the 2,017 members offered the program, 514 (25%) opted in and 18 of those members (1%) opted out during the program. Text messaging content triggered 38 personalized CDE coaching session requests, a rate of 7.8% of participating member population which is 85% more than the rate for members who did not participate in the text message program, 4.0%.

Participants were asked if the program was helpful for managing their diabetes - 99% of members reported "yes".

	Mean BG checks/day	Mean BG (mg/dL)	BG Std Dev	% BG < 80mg/dL	% BG > 180mg/dL
Pre-program	1.1	158	67	5.4%	25.3%
Post-program	1.2	153	54	5.2%	22.1%

Conclusions

Engaging people with diabetes education in a targeted and personalized manner helps connect members with CDE coaches and improve blood glucose control.

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Corresponding Author: Jenna Bollyky, MD - jbollyky@livongo.con

Livongo 150 W Evelyn Ave #150, Mountain View, California , www.livongo.com

Multimedia Appendix 1

Poster.

[PDF File (Adobe PDF File), 262KB-Multimedia Appendix 1]

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