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

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Background
Livongo Diabetes Program offers a cellulary-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 excursions.

Methods
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) Overcoming 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 (Post).

Results
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”.

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

Demographics
- N: 496
- Female: 51%
- Type 1: 8%
- Insulin Use: 44%
- Oral Meds: 72%

<table>
<thead>
<tr>
<th></th>
<th>Mean BG checks/day</th>
<th>Mean BG (mg/dL)</th>
<th>BG Std Dev</th>
<th>% BG &lt; 80mg/dL</th>
<th>% BG &gt; 180mg/dL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-program</td>
<td>1.1</td>
<td>158</td>
<td>67</td>
<td>5.4%</td>
<td>25.3%</td>
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<tr>
<td>Post-program</td>
<td>1.2</td>
<td>153</td>
<td>54</td>
<td>2.2%</td>
<td>22.1%</td>
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</tbody>
</table>

References
1. ADA Scientific Meetings, New Orleans, June 2016.