

Coach-guided Challenges as a Patient Engagement Tool



Molly Wagman^a, MS, RDN, CSSD, CDCES; Mag. Benno Grottenegg^a; Richard Biven^a, MSc; Valerie Eichinger^a, MSc, Johanna Kober^a, PhD;

Objective:

To test a new approach to encourage people with diabetes to engage in their daily diabetes care, coach-guided challenges were introduced via the mySugr app. The goal was to evaluate if patients change their logging behavior to reach a health-related engagement goal.

Method:

Educational videos based on topics of the AADE7 Self-Care Behaviors¹ were created, ranging from 5-30 minutes, housed on a landing page². A web link to the landing page was sent via secure coach message. The Winter Challenge included 4 weeks of education and guided coaching on the topics of: blood glucose (BG) monitoring, healthy nutrition, physical activity and emotional health. The Heart Challenge included 2 weeks of twice weekly education and guided coaching topics of: understanding your heart health numbers, heart healthy nutrition, physical activity and stress management. Both challenges included coaching support and reminders from coaches to participants to complete the weekly logging challenge/s. Patients used the mySugr logbook to track diabetes-related data points like BG, food, exercise, weight, blood pressure and free hand notes. mySugr users were invited via in-app coach message and email to take part in challenges; inclusion criteria: patients have been signed up for the mySugr coaching service. Winter Challenge participants were sent a survey after the challenge to gather insights on their experience and their confidence in their new habits. Heart Challenge participants were sent a heart health quiz before the challenge started and the same quiz with additional survey questions post-challenge to gather insights about their experience.

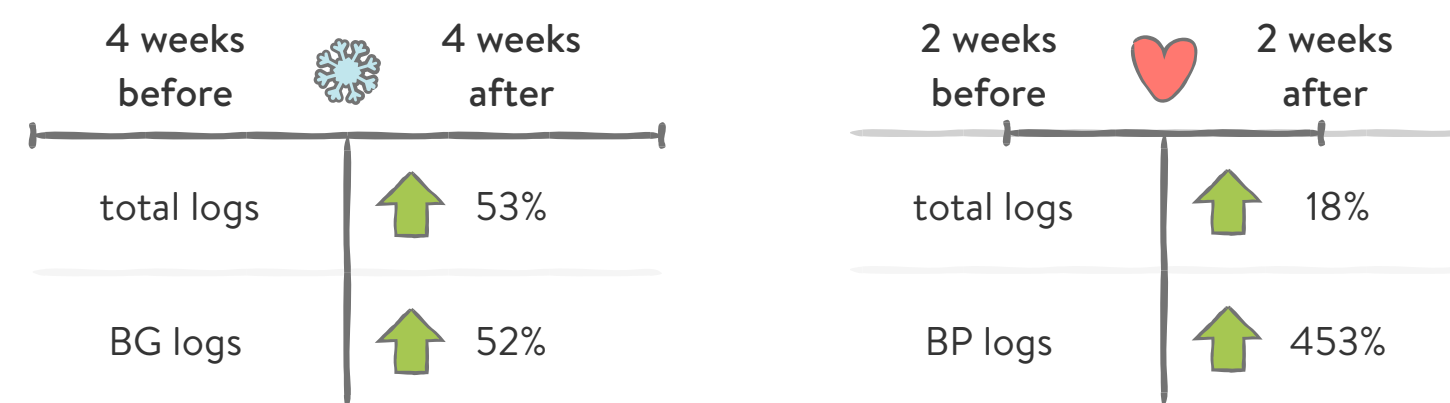
Results

The two challenges included a total of 97 participants. The Winter Challenge included 44 participants, the Heart Challenge 53 participants, with 73 distinct participants and 24 (44%) who participated in both challenges.

Participants	T2D	T1D	Other
44	60%	14%	26%
53	67%	17%	16%

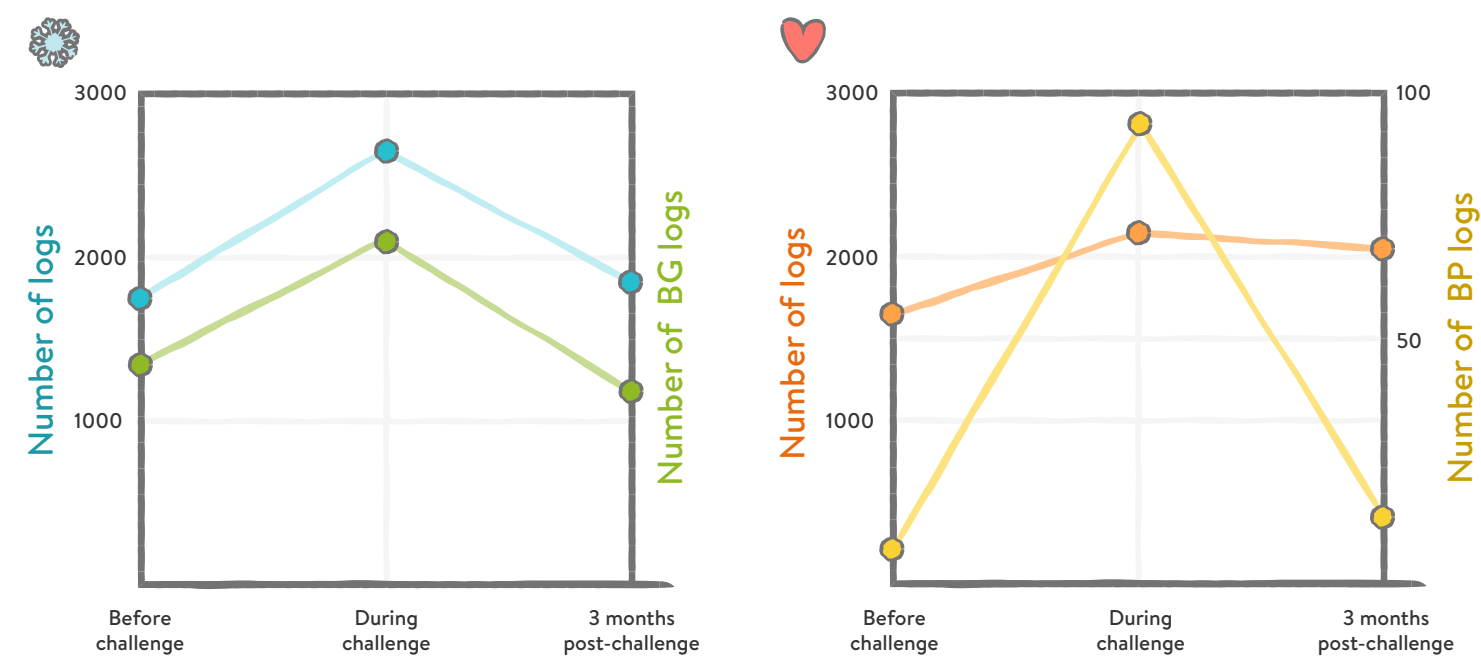
In the Winter Challenge an increase in total logs of 53% during the 4 weeks of the challenge compared to the 4 weeks before the challenge started was observed. Total logs in BG increased by 52%.

In the Heart Challenge total logs increased 18% during the 2 weeks of the challenge compared to the 2 weeks before the challenge started. The number of participants who logged a blood pressure (BP) value increased from 3 before the challenge to 39 during the challenge. The total number of BP logs increased 453%



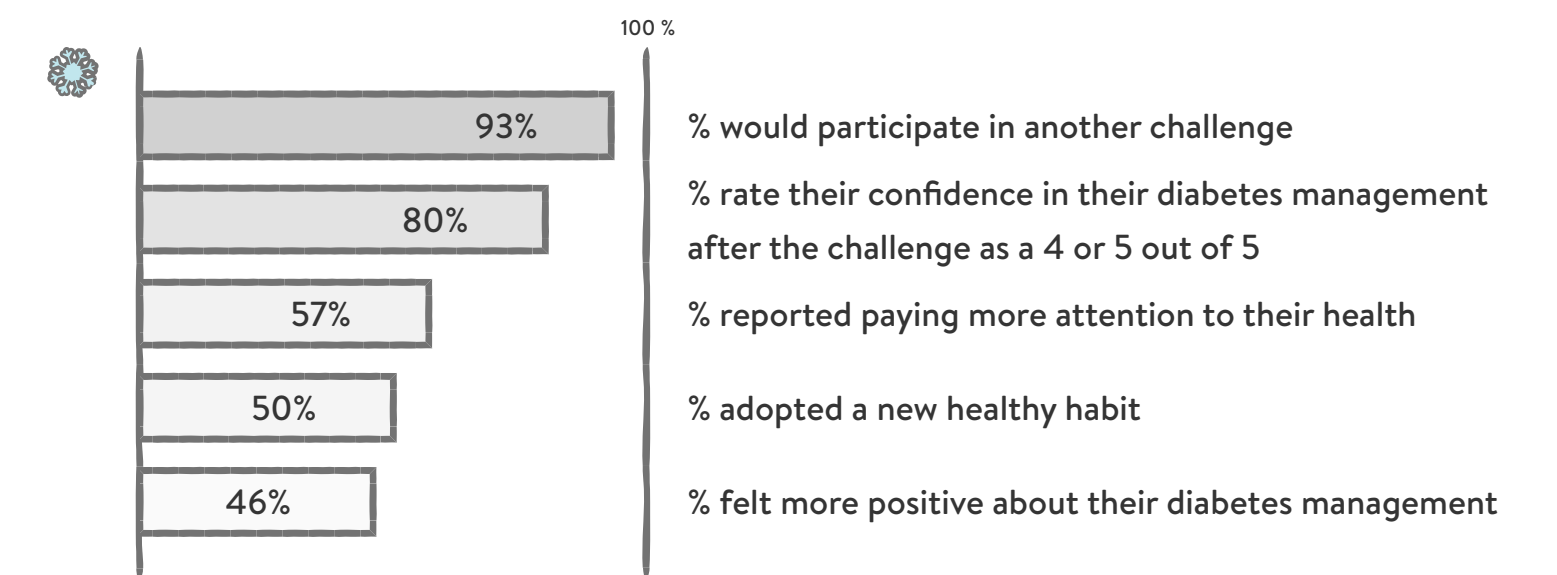
Increase in engagement during time of the challenge in total logs and blood pressure (BP) logs. For the Winter Challenge total logs increased from 1803 to 2753 total logs (53%). Total BG logs increased from 1413 to 2151 BG logs (52%). For the Heart Challenge the total logs increased from 1755 to 2072 total logs (18%). The total number of BP logs increased from 17 to 94 total BP logs (453%).

Additionally, three months after the challenges ended, the data were analyzed to evaluate the long term effect on engagement and logging behavior. 100% of participants were still enrolled in the mySugr coaching program 3 months after each challenge. For the Winter Challenge, participant total logs increased by 8% compared to 4 weeks before challenge start, however total BG logs decreased by 4%. For the Heart Challenge, participant total logs increased by 18% compared to 2 weeks before challenge start and BP logs increased by 65%.



Increased engagement was also observed at 3 months follow up. For the Winter Challenge participant total logs increased from 1803 (4 weeks before challenge start) to 1951 at the 3 months follow up (8%) and BG logs decreased from 1413 to 1338 (4%). For the Heart Challenge participant total logs increased from 1755 (2 weeks before challenge start) to 2068 (18%) and participant BP logs increased from 17 to 28 (65%).

The Winter Challenge participants were asked about their experience in a survey at the end of the challenge with the following result:



The Heart Challenge survey included a knowledge quiz which was sent out before and after the challenge:



Conclusion

Structured education and coaching guidance improves logging and therapy engagement and retention for challenge participants. Our approach to engage users resulted in a high level of engagement during the duration of the challenge and retention of positive behavior three months after the challenge. Research shows that patient engagement in Diabetes Self Management Education and Support is correlated with HbA1c reduction and improvements in other health markers like complication risk reduction, behavior and psychosocial aspects of diabetes management³. Once created, these structured challenges require minimal effort from coaches and are easily scalable for diabetes educators who have access to a digital platform (email, text message, healthcare portal, app, etc.) to send weblinks and communicate remotely with their patients. More research is needed to understand long term, sustained engagement and health outcomes achieved by these challenges.

References:
 a. mySugr GmbH, Vienna, Austria molly.wagman@mysugr.com
 1. [AADE 7 Self-Care Behaviors](#).
 2. [Challenges Landing Page](#).
 3. Powers M, Bardsley J, Cypress M, Dunker P, Funnell M, Fischl A, Maryniuk M, Siminerio L, Vivian E. Diabetes Self-management Education and Support in Type 2 Diabetes: A Joint Position Statement of the American Diabetes Association, the American Association of Diabetes Educators, and the Academy of Nutrition and Dietetics. Diabetes Care Jul 2015; 38 (7) 1372-1382; DOI: 10.2337/dc15-0730.