



Increasing Patient Engagement Through the Use of Online Diabetes Questionnaire : Cook Children's Endocrinology Clinic

Mouhammad Alwazeer MD, Susan Hsieh MD, Christin Morell RN, BSN, Stephanie Ogburn RN, BSN, CDCES, Candice Williams NP, CDCES

Background

Online health questionnaires engage patients in taking a more active role in their care and they increase efficiency by reducing data acquisition burdens on clinicians. Little is known about patient perceptions of these questionnaires, their actual uptake, and what strategies can be leveraged to drive their use. Enablers to using an online health questionnaire include ease of use with no training required, accessibility (personal electronic devices, in-office tablets), providing flexibility of when it can be completed, a reminder from the doctor's office via email, text, or phone before their appointment, and highlighting the value and importance of the online questionnaire. Prior experiences with poor disease control motivates patients to use the tool. Patients indicate that completing the questionnaire would enhance their understanding of their own disease control and believe primary care physicians would have a more thorough understanding of their condition. The utilization of the online diabetes questionnaire (ODQ) by patients with type 1 diabetes (T1D) prior to their clinic appointment is at 37% at best.

Objective

The objective of our project is to improve utilization of the online diabetes questionnaire (ODQ) by patients with type 1 diabetes prior to their clinic appointment in the Cook Children's Endocrinology Diabetes program satellite clinic in Hurst, Texas. We aimed to increase the utilization of ODQ prior to the appointment by 10%.

Methods

Patients sign on to the EHR system via a portal to pre-fill health online diabetes questionnaire (ODQ) with regards to insulin dosing, carb counting, goals for diabetes management, and questions the family may have or feel they need more information on.

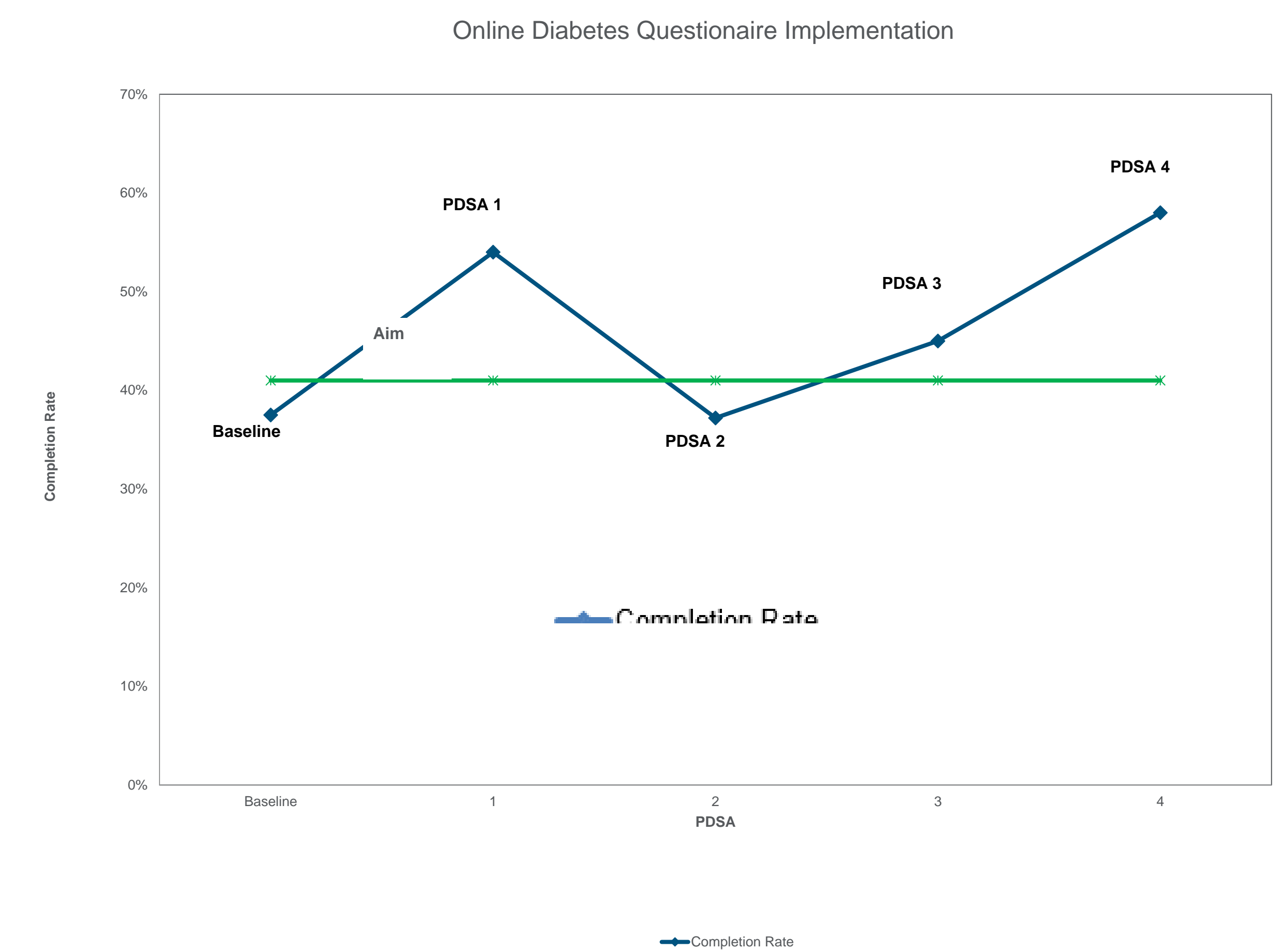
The following interventions were tested in PDSA cycles:

1. Send patient portal messages 3-7 days prior to appointment to remind Patient/Family to fill out questionnaire
2. The clinic secretary verbally reminded patient/families to fill out ODQ using smart phones after check-in to eliminate notification fatigue
3. The Medical Assistant (MA) reminded patient/families to fill out the ODQ while in the patient room
4. Medical assistant (MA) to remind the patients to complete the ODQ while waiting for the provider in the exam room

Results

Following a series of rapid PDSA cycles, the percentage of patients utilizing the ODQ increased from a baseline of 37% to 58%. This represents an increase of 21% over 12 months.

Table 1:



Conclusions

Completing the ODQ prior to the patients appointment helps improve the quality of the visit as it allows for more time with provider. Surprisingly, online reminders to complete the ODQ did not improve participation in the ODQ prior to the visit. Online patient portal message reminders resulted in notification fatigue. The study showed the most effective method to increase participation was onsite reminders via the MA as it helped utilize patients waiting time more efficiently. Utilizing the onsite reminders via the MA will be expanded to all endocrine clinics at Cook Children's. We also plan to analyze data based on socioeconomic status, education, and race/ethnicity to help better understand and improve the participation rate.

References:

Kouri, A., Yamada, J., Sale, J., Straus, S. E., & Gupta, S. (2020). Primary Care Pre-Visit Electronic Patient Questionnaire for Asthma: Uptake Analysis and Predictor Modeling. *Journal of medical Internet research*, 22(9), e19358. <https://doi.org/10.2196/19358>