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My Diabetes Care: Enhancing Patient Engagement in Diabetes Care



Introduction: Diabetes mellitus type 2 (T2DM) is a chronic illness requiring continuous medical care. Diabetes self-management is critical to preventing or delaying diabetes-related complications. Nevertheless, many patients struggle to implement and sustain recommended self-care behaviors due to language, health literacy, and socioeconomic barriers. We developed a multi-faceted patient portal intervention, My Diabetes Care (MDC), to help patients better understand their diabetes health data while promoting and supporting self-management.

Methods: We used a five-phase user-centered Design Sprint methodology to create a prototype of MDC's expanded and improved performance. Patient interview sessions were performed to ensure that the design of the MDC was practical and usable for patients to understand their diabetes health data better. Patients were invited by mail to be screened for enrollment in the study. Then, study participants completed questionnaires including basic demographic questions, items about computer usage and internet access, and validated health literacy and eHealth literacy measures.

Results: We conducted two rounds of usability tests that consisted of 12 participants in total. Each participant was given a series of tasks rated from 1-5, with one being very difficult and five being very easy. Some studies were: to locate personal data with an average task rating of 4.8/5, Review info icons with a task rating of 4.5/5, interpret personal data with an average task rating of 4.7/5, locate self-care information with an average task rating of 4.7/5, interpret Kidney values with an average task rating of 4.7/5, locate Kidney self-care information with an average task rating of 5/5, and review historical data with an average task rating of 4.5/5. At the end of each session, patients performed a system usability scale and patient satisfaction survey. Overall, participants could navigate MDC easily and were satisfied with the feature.

Conclusions: Diabetes mellitus self-management can improve glycemic control and prevent complications and premature mortality; nevertheless, many patients struggle to sustain self-care behaviors. MDC can support the skills and confidence needed to improve diabetes self-management. In addition, expanding and enhancing MDC, including the design of a Spanish-language version, may help broaden engagement, particularly among Hispanic patients disproportionately affected by T2DM.