Diabetes Passport to Health: Development and Piloting of a Self-Management Tool for High-Risk Patients

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Background

While treatment of Diabetes mellitus Type 2 (T2DM) has improved, this disease continues to be challenging to manage as it requires the patient to change habits and to self-monitor and to have regular visits for assessment of multiple items (ie. HbA1c monitoring, annual eye and foot exams, annual microalbumin). The National Health and Nutrition Examination Survey (NHANES) found that 18.8% of diabetics achieved recommended goals for A1C, LDL cholesterol, and blood pressure. Failure to monitor and control these factors leads to preventable complications of diabetes, which is associated with the micro-vascular complications of T2DM. While control of diabetes and fulfillment of recommended care management processes is challenging for many diabetic populations, low-income and minority patients are at a particularly increased risk of unmanaged diabetes and unmet care needs.

Enhancing patient self-management and partnership can lead to improved control of blood sugar and other factors. Unlike other chronic diseases, diabetics are required to make constant choices that affect their glycemic control. The success of diabetes management therefore is largely dependent on the patient, and potential for improvement lies in motivating patients to play an active role in the management of their disease. Recent studies have shown that providing patients with personal feedback improved health outcomes. One such method of feedback that has been implemented in various settings is through a “diabetes passport”, a patient-held record to help patients track important results, follow their disease, and set personal goals.

The Good Samaritan Health Center is a large safety net clinic located in west Atlanta. The clinic serves over 25,000 patients annually, all of whom report incomes below 200% of the federal poverty line. Between May and July 2015, students from the IHI Open School Emory chapter worked with clinicians at Good Samaritan to conduct a QI project aimed at improving self-management of patients with T2DM.

Aim Statement

We aim to improve diabetes self-management by providing 80% of targeted patients encountered between May -July 2015 with a diabetes self-management tool.

Design and Changes Made

Team members consisting of public health and medical students, met regularly during the Spring 2015 semester to design and implement a “diabetes passport”. The team collaborated with staff at the Good Samaritan clinic to first determine project goals. The clinic was in need of a way to remind diabetic patients of appointments, particularly their annual screening exams. The team developed a diabetes passport using models available in literature, modified to better serve the targeted population (Figure 1). The team made biweekly visits to the clinic to implement the passport. This involved running PDSA cycles with measures to determine the feasibility of the passport in terms of how patients responded to the passport and how the passport changed clinic workflow.

Outcomes

Throughout the planning and implementation of the self-management tool, two goals remained in the forefront of decision making: 1) Remain receptive to the needs of the patients while addressing the important measures that a provider would want to assess; 2) Ensure implementation does not exceed a minimum level of disruption to provider workflow. Both goals were accomplished by involving both stakeholders in the design and implementation phases of the self-management tool.

A total of 19 diabetic patients, 5 providers, and 10 health educators were impacted by this project through direct involvement.

Implementation of the Diabetes Passport to Health

![Figure 2: Run chart demonstrating the number of patients and providers who received the Diabetes Passport to Health.](http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD001481/abstract)

Future Directions

The implications for this project are to influence long-term health outcomes for diabetic patients by providing them with a self-management tool to assist in tracking their personal biomarkers as well as facilitating communication with their provider.

Future directions of this project are to determine whether the passport has had an effect on patient adherence to diabetes screening exams and the frequency that patients bring the passport tool to routine visits. Data will be collected over the next year to determine whether patients who received the passport are more compliant at receiving regular HbA1c checks and annual screening exams compared to patients who did not receive the passport.

Sustainability of the passport implementation will be done in collaboration with the next cohort of students from the diabetes improvement team, with the eventual goal for the clinic to fully implement this resource as part of their monthly nutrition classes and clinic appointments with diabetic patients.

References