

Creating Healthy Work Environments 2019

Improving Patient-Centered Diabetes Care in a Nurse Practitioner-Led Clinic: A QI Project

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Aim: This quality improvement project aimed to improve the percentage of diabetic patients receiving standardized, appropriate diabetic care to 90% over 90 days.

Background: Diabetic patients are at higher risk for heart disease, stroke, blindness, kidney failure, and extremity amputations (CDC 2017). Diabetes and its complications, deaths, and societal costs have a vast and rapidly growing impact on the United States (US). With an economic burden of \$327 billion for 2017, demonstrating a 26% increase from 2015 arguably one of the costliest diseases facing the US (ADA, 2018a).

Rationale: Before this project, no standard routine best practices were followed at this Nurse Practitioner (NP) -Led clinic for diabetic patients. Consequently, diabetic patients were receiving sub-optimal care. A chart audit of diabetic patients showed a significant gap in care, with 75% of patients having a Glycated Hemoglobin (HbA1C) of more than 8%, 25% had inadequate blood pressure control, and 100% had one or more preventative care (foot screening, spot urinary albumin, podiatry, and ophthalmology referrals), all of which demonstrated a lack of application of clinical guidelines. Evidence has shown decreased mortality and improved diabetic patient outcomes when evidence-based clinical practice guidelines are followed (ADA, 2018b). The American Diabetes Association (2017) recommends providers routinely seek out processes and structures conducive to improving diabetes care.

Methods: The project followed the Institute for Health Improvement (IHI) quality improvement model with four two-week Plan-Do-Study-Act (PDSA) cycles. The project began with Tests of Change (TOC) including team engagement and patient engagement; and two processes which included a diabetes care measure checklist and preventive care referrals. Iterative TOC was used to improve team confidence, patient engagement, diabetes care measures, and preventive care referrals. This project utilized four process measures to determine what interventions were performed as planned to affect the six outcome measures. The six outcome measures included the team member's scores on the survey, the number of patients empowered to make goals, the mean score of the completed Diabetes Care Measure Checklist (DCMC), the mean score of the DCMC captured in the Electronic Medical Record (EMR), and the number of preventive patient referrals. Operational definitions were established for each TOC to prevent ambiguity. Data were collected and analyzed using run charts, chart audits, and surveys. Run charts were used to analyze data to better understand a change over a period of time from pre-intervention to post-intervention (Ogrinc et al., 2016). The data on the run charts and feedback were reviewed to modify subsequent interventions accordingly.

Interventions: Primary interventions utilized during this quality improvement project were team education sessions & meetings; morning huddles, utilization of a patient engagement tool to empower diabetic patients to make goals, and providers utilizing a diabetes care measure checklist to identify gaps in care.

Results: Results for PDSA cycle 1 and 2 showed a gradual improvement due to inadequate systems, lack of team confidence, and team dynamics. PDSA cycles 3 and 4 showed much improvement, with an overall mean average of 93% of diabetic patients receiving standardized, appropriate diabetic care an improvement from 27%; team confidence increasing to 4.5 on a Likert scale from 2.5; diabetic patients empowered to create goals 84% improving from 33 %, and diabetes care measures reviewed via checklist 92% of the time improving from 39%. Definitely, demonstrating an improvement of diabetic patients receiving standardized, appropriate diabetic care at this NP-Led clinic.

Discussion: Factors promoting the success of this project included seeking out new processes, ideas, and support from team members who, in turn, learned that team dynamics and cohesiveness are paramount in a QI project. Team engagement played a crucial role in this QI project. Demonstrating the importance of team confidence, but the team's sense of confidence had an even more significant impact with a direct correlation between team cohesiveness, and overall team engagement. Thus, affecting all tests of change interventions, processes, and outcomes.

Conclusions: Despite the numerous challenges along the way, this QI project improved patient-centered standardized, diabetes care in this chaotic practice. The major success of this project was the process of change affecting the overall team with improved cohesiveness, confidence, and communication. With morning huddles instrumental in improving team dynamics and cohesiveness, which was demonstrated to be a key component in the success of this QI project, as well as to improved workflow efficiency for this practice. Using the patient engagement tool and Diabetes Care Measure Checklist reinforced the importance of patient engagement, in addition to following diabetic guidelines, as a path to improved diabetes patient care. This project highlighted that a team has significant power for achieving better diabetes outcomes.

Title:

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Keywords:

patient-centered, Diabetes and Team engagement

References:

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Abstract Summary:

A quality improvement project to improve patient centered standardization of diabetes care in a chaotic Nurse Practitioner Led clinic. That resulted in increased patient centered standardized care for diabetic patients. This project highlights that a team has significant power for achieving better diabetes outcomes.

Content Outline:

Improving Patient-Centered Diabetes Care in a Nurse-Practitioner Led-Clinic: A QI Project

I Introduction

Background

1. Review National statistics, economical costs and diabetic patient's health risks.
2. Gap in care at practice reviewed.
3. Review of literature relating to improved diabetic patient outcomes when evidence-based clinical practice guidelines are followed.

II Body

Aim: The aim of this quality improvement project was to improve the percentage of diabetic patients receiving standardized, appropriate diabetic care to 90% over 90 days.

Planned Improvement

1. Method used to bring about change.
2. Interventions utilized.
3. Strategy for change.

Measurements of Improvement

1. Process/outcome measures and operational definitions used.
2. Approach used to measure the effects of change.

Results

1. Visual review of impact of change on the system.

III Conclusions/Lessons Learned

Lessons Learned (outlined on the poster)

1. Key findings encountered during the process of change.
2. Factors that have led to sustained improvement.
3. Lessons about the implementation of change that was learnt.
4. Description of the impact on diabetic patients and the whole system.

Conclusion

This project increased patient centered standardized care for diabetic patients. Highlighting that a team has significant power for achieving better diabetes outcomes.

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Systematic Review 17 years of critical care experience; 2 years as an FNP with a recent doctoral completion focusing on a patient centered approach to diabetes care.

Author Summary: Dr. Newton is a family nurse practitioner at Baylor Scott and White Pflugerville, Texas. With over 17 years of critical care nursing experience. Recently completing her doctorate in 2018 from Frontier Nursing University with the legacy of Mary Breckenridge, the founder who was passionate about working with underserved populations. Dr. Newton is passionate about providing patient-centered care to optimize her patients' lifestyle and improve their quality of life.