Patient-Centered Standardization of Diabetes Care in a Nurse-Practitioner Led-Clinic

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Background

- Every 21 seconds a patient is diagnosed with diabetes, contributing to a present population of 30.3 million in the United States (US) (3).
- Associated healthcare cost for the US are estimated to be 327 billion dollars in 2017 (2).
- People with diabetes are at higher risk for heart disease, stroke, blindness, kidney failure, and extremity amputations (3).
- Prevalence of diabetes in Bexar County, Diagnosed: 14.2% of the population. 4.8% higher than the national average (4).
- Baseline data showed ,75% of patients having a Glycated Hemoglobin (HbA1C) of more than 8%, 25% of patients having inadequate blood pressure control, and 100% not having primary preventive care measurers at Babcock Health & Wellness Center (BHWC)
- No standard routine best practices were followed for diabetic patients.
- Evidence has shown decreased mortality and improved diabetic patient outcomes when evidence-based clinical practice guidelines are followed (1)

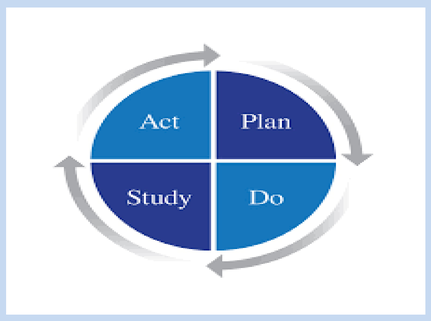
Aim

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

- The Institute for Healthcare Improvement (IHI) model for quality improvement (QI) was used to guide this project.

Four rapid cycles of
Plan, Do, Study Act (PDSA)

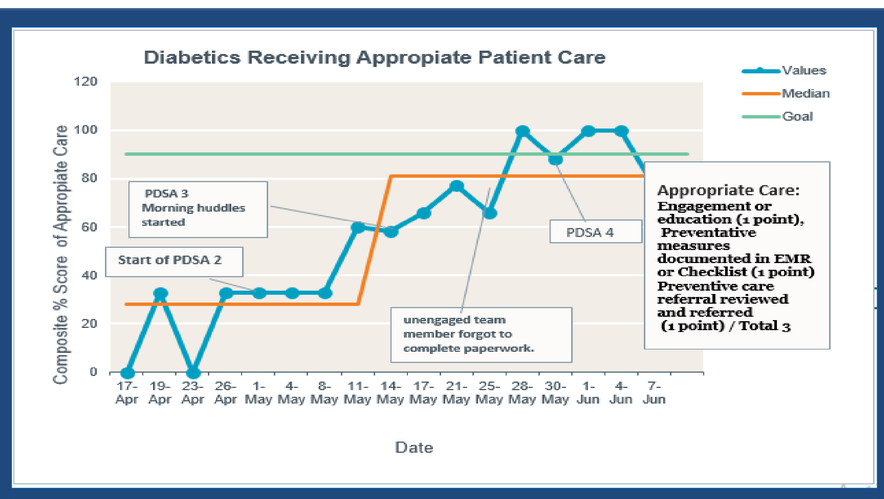


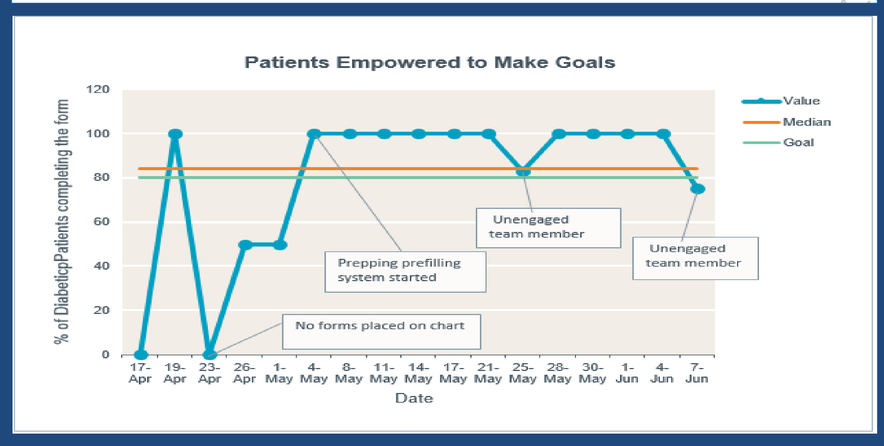
✓ Team engagement:
- Education on diabetes preventative care measures, educational sessions, team meetings, morning huddles.

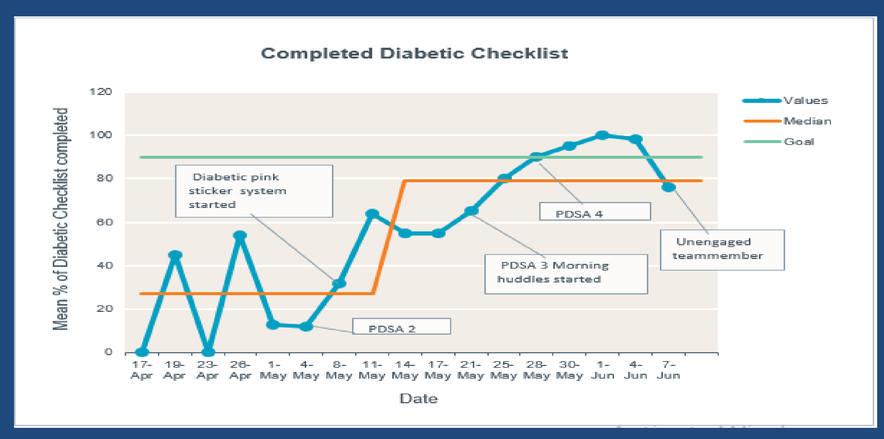
✓ Patient engagement:
- Engagement tool created to make patients aware of their numbers an empowered to create 1-3 goals.

✓ Process changes:
- Diabetic Care Measure Checklist (DCMC)
- Preventative care referrals.

Results







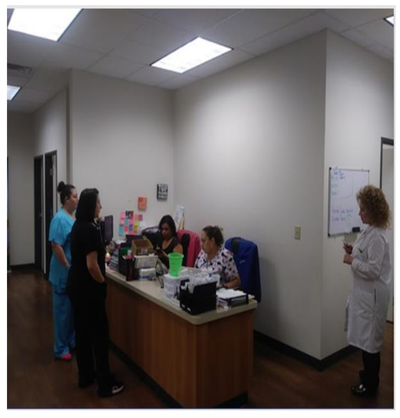
OUTCOME MEASURE RESULTS

Area of Focus	Aim	Team Engagement	Patient Engagement	Diabetic Care Measure Checklist (DCMC)		Diabetic Referral
Baseline	27% Diabetic patients receiving appropriate care	2.5 (Likert scale) Team confidence (on diabetes, and prevention measures)	0% Goals made by diabetic patients Using new tool	39% Captured in EMR diabetic note	0% DCMC completed (new int.)	0% Ophthalmology and podiatry referral
PDSA 1	28%	3.25	43.2%	14%	22.4%	0%
PDSA 2	50%	4	82.5%	39.2%	43.6%	5%
PDSA 3	81%	4.4	94.3%	66%	78.3%	50%
PDSA 4	91.25%	4.5	95%	89.25%	92.5%	81%

Contextual elements associated with success:
- Team engagement played a crucial role, demonstrating the importance of team confidence, but the team's sense of confidence had even greater impact.
- There was a direct correlation between team cohesiveness and overall team engagement, affecting all tests of change interventions, processes, and outcomes.
- Morning huddles was the turning point for this QI project.

- A diabetes sticker system created for the charts made it a visual reminder for the team to place forms on charts.
- The prepping and prefilling of forms increased utilization of patient engagement tool and DCMC with it being done prior to the visit.

- The interventions were successful by PDSA 4
- Team confidence increased to 4.5 on the Likert scale.
- Diabetic patients were empowered to create goals 95% of the time.
- Diabetes care measures were reviewed via checklist 92% of the time
- Diabetic patients referred for ophthalmology and podiatry 81%
- BHWC diabetic patients received appropriate care 91.25%



Measures

AIM: Our aim is to increase the rate of diabetic patients receiving standardized, appropriate diabetic care to 90% over 90 days.

Appropriate care: Patient engagement or Education= (1); Preventative measures documented in EMR or check list = (1)

Preventative referral reviewed and referred= (1) /total 3 points

Area of Focus	Measure Type	Operational Definition
A: Teamwork	Process: Increase staff attendance to meetings and huddles	# of staff in attendance/Total # of staff
	Outcome: Improve confidence level	Average score on Likert scale tool every 2 weeks
B: Patient Engagement	Process: Diabetic patient engagement tool utilized	# of diabetic patient receiving the PE tool /# of diabetic patients seen that day
	Outcome: Diabetic patient empowered to create diabetic goals	Average score of diabetic patients who made diabetic goals
C: Diabetic Care Measure Checklist (DCMC)	Process: Utilize DCMC	# of DCMC on the chart /# of diabetic patients seen that day
	Outcome (a): EMR documentation of DCMC Outcome (b): Completed diabetic checklist	(a)Mean score % of checklist documented in the EHR (b) Mean score% of checklist completed
D: Preventive Referral	Process: Identify diabetic referrals	#of diabetic patients identified for a referral /# of diabetic patients seen that day
	Outcome: Increase the number of diabetic patients receiving a referral	The average score of patients referred to ophthalmology and podiatry
Balancing Measure: There will be no more than a 5-minute increase in time for a diabetic patient from average patient encounter		Average encounter time from check in to check out

Conclusion Lessons Learned

Key Findings
- This project increased patient centered standardized care for diabetic patients at BHWC.
- This project highlights that a team has significant power for achieving better diabetes outcomes.
- The major success of this project was the process of change affecting the overall team with improved cohesiveness, confidence, and communication, thus resulting in improved diabetes patient care.
- Delivery of high quality diabetes care is providing patient-centered care with individual support, improving diabetic patient clinical outcomes.

Implication of Practice
- Creates awareness with the utilization of a patient engagement tool coupled with leadership support can empower diabetic patients to improve their numbers.
- Using a standardized checklist

Sustainability and Spread
- Continue morning huddles as a focal point for favorable team dynamics and cohesiveness, which was a key component in the success of this QI project, as well as to improved workflow efficiency for this practice
- Engagement tool can be used by other primary care clinics

Next Steps
- Incorporate the engagement tool and DCMC into the EMR

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Acknowledgements

The BHWC team for all their hard work

Dr. Meier for guidance and support & FNU DNP faculty