Creating a Healthier Population by Achieving the Triple Aim in a Community Based Diabetic Clinic

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Disclaimer

❖ Dr. Shondell Hickson is the Clinical Coordinator of 'The Diabetes Clinic' at Matthew Walker Comprehensive Health Clinic (MWCHC) in Clarksville TN. This diabetic program is funded by a grant from the Clarksville Montgomery County Health Foundation.

❖ Dr. Patty Orr- is the grant writer and the Lenora Reuther Endowed Chair of Excellence. She is the clinical instructor for the Baccalaureate of Science in Nursing (BSN) community health students.

❖ There are no other conflict of interest issues to disclose.

Presentation Objectives

- Describe the outcome goals of the Institute of Healthcare Improvement (IHI) triple Aim, and relate how these goals are implemented and achieved in a faculty managed diabetic clinic

- Understand the collaborative treatment approach with the BSN students, faculty nurse practitioners and to local agencies.

- Describe how a school of nursing contribute to a healthy community.

- Develop an action plan to create a healthier community by providing primary care, disease management and care coordination for an underserved diabetic population.

The vision of the diabetic clinic?

- In 2008, Dr. Orr (Lenora Reuther Chair of Excellence) wrote a grant proposal based on her extensive experience with chronic illness management.

- The proposal was accepted by the Montgomery County Foundation to provide diabetic and hypertension management to the underserved population.

How does the diabetic program works?

- The APSU school of nursing developed a care delivery model using faculty nurse practitioners and baccalaureate science in nursing (BSN) community health students.
- The program is delivered in partnership with a community health center and is funded by a county health foundation grant that must be re-applied for each year.
- Each renewal funding is dependent upon the achievement of the stated health status outcomes for the population.
- A formal contract defines the partnership between the school of nursing and the community health center.

The objectives of the grant

- Utilize a faculty family nurse practitioner (FNP) from the school of nursing (SON) to provide and improve access to healthcare for the Montgomery county population
- Utilize the **Bachelor of Science in Nursing (**BSN) community health students to follow up on patients seen by the FNP faculty doing healthcare calls(TELEHEALTH).
- Locate and collaborate with a clinic in county that would support this vision and the Matthew Walker clinic gladly accepted venture.

How are the residents of Montgomery county impacted by the grant?

Through this grant, Montgomery county residents are positively impacted in the following areas:

- Keeping patients healthy
- Overall cost in care for patients with chronic illnesses have significantly decreased.
- Decrease hospitalization and emergency room care
- Meeting quality matrices annually which are favorable for the grant renewal.

2015 APSU SON Research question

Can primary care provided by faculty nurse practitioners with telehealth and disease management provided by BSN students improve HgA1c levels and achieve weight loss for an underserved diabetes patient population as compared to the population's baseline prior to participation in the program of care?

What is population health?

Berwick et al. (2008) identify " Improving the health of populations" as one element in the Institute for Healthcare Improvement's (IHI) Triple Aim for improving the U.S. health care system.

Why Population Health

Population health impacts the community in the following ways:

1. The primary care provider to lead the care team based upon findings from an integrated data set that guides clinical decision making.

2. Needs the community to contribute and take responsibility with the primary care provider.

3. Primary care provider are compensated through successive grants that pay for the faculty nurse practitioners part-time salary.

4. The primary care provider and the community together impacts patient engagement which maximizes health outcomes for a population.
5. The health of the diabetes population is measured by reporting HBA1C levels and weight status

Utilizing the triple Aim by the IHI

The 3 triple aim implemented into the underserved diabetic population are-

- Improving the patient care experience
- Improving the health of the population
- Reducing the per capita cost of healthcare

Patient experience measurement

The patient experience is measured using a 5 question survey to assess :

1. The patient's confidence in getting the medical care they need
2. Relationship with the primary care provider motivates them to adhere to their treatment plan
3. Provider interest in the patient as a person
4. Patient has received care in the emergency department in the last 6 months
5. Patient visiting the emergency department for treatment of their chronic illness despite having access to care

APSU Care Delivery Model

Montgomery County Health Foundation Grant

Austin Peay State University School Of Nursing

APSU Faculty Nurse Practitioners

BSN community Health students

Matthew Walker Comprehensive Health Care Clinic

Goals of the collaboration partnership

The collaborative partnership goals includes:

1. Providing care that was previously not available to this uninsured population.
2. Creating a healthier community by maintaining optimum HBA1c values
3. Preventing diabetes for the at-risk pre-diabetes population and decreasing complications in the diabetes population
4. Service-learning opportunities and clinical site placement for the BSN students
5. Outcome achievements align with the mission of the community health agency,

The role of BSN student

The BSN students in the care delivery model includes:

1. Utilizing provided data set from the faculty NP and retrieving information from patient's electronic health records (EHR) for patient's diagnosed with diabetes Mellitus and Hypertension.
2. Functions as case managers by telecommunicating and actively listen to the individual patients.
3. Deliver care interventions that advance outcomes, improve quality, impact a positive patient experience and lower cost.
4. Assist patients access community resources and remove the personal barriers that prevent patient success in self- managing their disease.
5. In-person diabetes teaching on the day that patients are seen by the faculty FNP
6. The BSN students teach medication management, blood glucose monitoring, diet and exercise requirements

The role of the APSU faculty NP

The role of the NP faculty on the care delivery model includes:

1. Managing the Diabetic Clinic with operational support by the community health center's management team.
2. Provide primary care for patients diagnosed predominately with diabetes mellitus and hypertension who presents for care at the Matthew Walker clinic.
3. Keep current with and implement evidence based guidelines from the American Diabetic Association (ADA), Joint National Committee (JNC 8) and the Framingham guidelines.
4. Entering patient information into a secure data set for follow up by the BSN community health students.
5. Working to achieve set goals for the grant year to ensure grant renewal.
6. Collaborate, provide instructions and guidance regarding patient set goals with the BSN students .

Results of research

- Outcomes were collected and analyzed based upon the data in the electronic health records of 150 patients.

- The studied patient population included long term patients with some new patients that had been seen for least two primary care visits over the last 12 months.

- A baseline aggregate HbA1c of 7.89 % was found on the initial visit during the studied period compared to the final aggregate HbA1c collected during the 12 month period of 7.77%.

- Outliers, includes sixteen participants who entered the program in the studied year with significantly out of control HbA1c values then achieved an average aggregate 4.33% improvement from first visit to last follow-up visit during the studied 12 months. These were patients that had initial HbA1c values of that ranged from 17.1%, to 9.3% on their first visit.

Results of research

- Another 150 patient electronic health records of primarily new patients were also studied du ring a 12 month period for outcome evaluation
- Findings for the 150 patients included an aggregate baseline first visit HbA1c of 9.47%.
- The last follow-up aggregate average HbA1c for this same group of patients during the 12 month period was an aggregate average of 8.4 4%, indicating an aggregate 1.03% improvement in HbA1c.

Results of Patient experience survey

- Three patient experience questions focus on provider interest in the patient as a person (95% positive)
- The 2nd question on patient's confidence in getting the medical care they need were (91.6% positive)
- The 3 rd. question on whether the relationship with the primary care provider motivates them to adhere to their treatment plan was (100% positive)

The two emergency (ED) department survey questions came back much less positive. The questions asked

- if the patient has received care in the emergency department in the last 6 months (62.4% reported that they had accessed the ED)
- if they had been back to the ED since having access to care for treatme nt of their chronic illness (54% reported that they had accessed the ED).

The measurement of ED visits represents much opportunity for improvement in more effectively helping the patient manage their diabetes and hypertension at the diabetes clinic and to discuss options with the patients for focusing on early prevention rather than emergency intervention

Questions

Reference

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