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Improving Diabetic Adherence Through a Diabetes Self-Management Education Program: An Evidence-Based Practice Improvement Project

Kallie Pothier BSN, RN; Jacquelyn Farr BSN, RN; Dr. Karen Lasater, DNP, FNP-BC

BACKGROUND

- Diabetes mellitus type II impacts the community's health care dollars and health outcomes as diabetic care is expensive and if poorly managed can lead to serious complications such as kidney failure, stroke, blindness, myocardial infarction, and limb amputation.
- A literature review suggests a diabetic self-management education (DSME) program improves A1C levels.
- DSME programs is multidisciplinary, used to support behavior changes in diabetes mellitus type II patients.
- They are increasingly beneficial after complications arise and for newly diagnosed patients.

LOCAL PROBLEM

- The practice improvement project took place at a local primary care practice in East Tennessee.
- Key stakeholders identified adherence to plan of care, specifically medications as a problem in the diabetic population.
- The purpose of the DNP scholarly project is to address diabetes adherence by assessing current literature to examine the effect of DSME compared to usual care.
- By August of 2024, of adults with type II diabetes mellitus who would benefit from DSME, 60% will have a HbA1C of < 7%.

METHODS

- The framework for the project is the Evidence-Based Practice Improvement (EBPI) model.
- Literature review and critical appraisal strongly supports the implementation of a DSME program.
- Education packets and questionnaire were created in collaboration with project site and supported by the literature.
 - Blood sugar control, what is diabetes, sick day education, and blood sugar log
- Data collection:
 - A1C level (pre- and 3-month post implementation) and demographics

A1C levels decreased after implementation of a DSME program.



Outcome Measures	% < 7	% > 7
Pre- A1C	20	80
Post- A1C	35	45 (missing 20%)

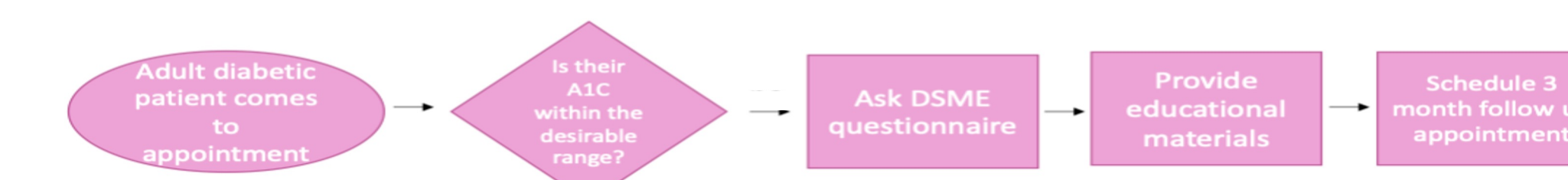
Balancing Measures	%
Sex	
<i>Male</i>	50
<i>Female</i>	50
Race	
<i>African Americans</i>	5
<i>Hispanic</i>	10
<i>White</i>	85
Insurance type	
<i>BCBS</i>	45
<i>Cigna</i>	15



Scan for education packet and references

INTERVENTIONS

- Staff identified patients that qualified for the project during the month of February.
- Patient questionnaire was used to identify gaps of understanding of their disease and disease management.
- Follow-up completed at 3 months obtain A1C levels, reassess their knowledge, and what they thought of the packet



RESULTS

- A1C levels < 7% increased from 20% to 35%.
- A1C levels > 7% decreased from 80% to 45%.
- 4 patients have not had follow-up appointment or a repeat A1C level
- Very few participants used the packet as a resource for its intended purpose.
- Patients identified this as a great resource for newly diagnosed patients.

CONCLUSIONS

- Our project compares to our aim as it did decrease A1C level, but 60% were not < 7%.
- DSME is essential to reduce A1Cs and allow patients to have additional education resources.
- Next steps: hosting a class to teach information in packet, diabetes support groups, and expand to include a Spanish guide
- Limitations: those who cannot read/write or speak English
- Easily sustainable as the project is low cost.