Improving Outcomes in Adult Hispanics Through a Culturally Tailored Diabetic Program

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PROBLEM STATEMENT

- Diabetes rates continue to increase in the United States and among ethnic minorities, those rates increase at a faster rate (Centers for Disease Control [CDC], 2020).
- Addressing language barriers, cultural barriers, and improving access to care, have been proven methods to advance health literacy and improve diabetic control (Titus et al., 2019).
- *The Standards of Medical Care in Diabetes* released by the American Diabetes Association (ADA) in January 2021 emphasize the need for reinforced education, tailored and culturally sensitive diabetes management programs, and improved methods to aid in reducing health disparities (ADA, 2021).

PROJECT PURPOSE

- The purpose of this project was to create a tailored education program directed to help improve health outcomes and increase self-management practices among the uncontrolled Type 2 diabetic (T2D) Hispanics within a primary care office.
- The project aims to reduce disparities, improve quality care, and improve diabetes self-education among these high-risk individuals.
- Clinical question: Will a tailored educational program for the uncontrolled Hispanic diabetic improve self-management, Body Mass Index (BMI), and average fasting glucose (AFG) values over 3 months?

MODEL/NURSING THEORY

- The Plan-Do-Study-Act model for Quality Improvement guided the project.
- Leininger's Culture Care Theory focuses on cultural sensitivity and competency of the nurse within the expansive constructs of the patient-provider relationship.

METHODS

- **Participants**
  - N=12, uncontrolled T2D, self-identified Hispanic patients, (hbA1c >7.0%, age >=18)
- **Setting**

A 3-Provider (1 MD, 1 PA, 1 APRN), Private practice, Internal Medicine office within a larger multispecialty health group in Tampa, FL servicing over 7,500 patient visits per year.

- **Instruments**
  - The **Summary of Diabetes Self-care Assessment Questionnaire** (SDSCA)- measures the patient's performance of the 5 main elements of self-care: nutrition, physical activity, medication use, foot exams, and glucose monitoring
  - Measurements also included BMI (office scale) and average fasting glucose (patient's glucometer)
- **Intervention and Data Collection**
  - The intervention took place over 12 weeks.
  - Patients were given individualized education, counseling, and goal setting at each of the 4 monthly, live-visits and 8-weekly coaching text message sessions with follow-up care provided
  - Collected data from the SDSCA screening questionnaires, BMI and AFG during each of the 4-Monthly visits.

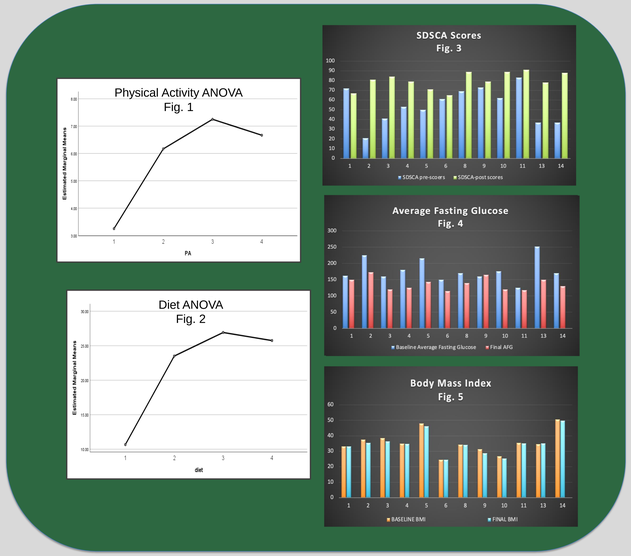
DATA ANALYSIS

- ANOVA and T-tests were used to determine statistical significance

RESULTS

- Female (50%), Mean age = 54 years (SD =10.35), Mean years diagnosed T2D: 9.6 years (SD= 5.71), Mean hemoglobin A1c= 8.5% (SD= 1.24), Mean baseline BMI = 35.8 kg/m^2 (SD= 7.50), Mean AFG = 179 mg/dL (SD= 35.36)

- Physical activity and diet subscales reflected the most variable change ($p<0.05$) using total scores from each of the four time points (Fig. 1-2).
- Total SDSCA scores for self-care increased by 45.8% in 12 weeks (p=0.0006), (Fig.3).
- BMI reduced by 2.5% (p=0.011) and average fasting glucose reduced by 20.7% (p=0.0004), (Fig.4-5).



DISCUSSION

- It was found that ongoing education and reinforcement are necessary to improve diabetes control among patients and may require more individualized interventions for the patient's needs rather than solely a group session at the time of their diagnoses.
- More work in addressing health barriers and self-care needs is needed to help slow the rise in cases and reduce the disproportionate increase in complications among diabetic ethnic monitories.
- Limitations: timing of intervention, recruitment difficulty, length of intervention, and the Covid-19 pandemic.

IMPLICATIONS FOR ADVANCED PRACTICE NURSING

Primary Care Nurse Practitioners have an added advantage to fulfill the role of diabetes support member and educator and can help reduce health inequities.

SUSTAINABILITY

- Cost effective
- Modifications needed (PDSA cycles)
- Regular interval assessments and ongoing education prove effective in improving patient care.

REFERENCES

SCAN ME

Establishing a diabetes management education and an ongoing reinforcement program within the primary care setting will improve health outcomes among Hispanic diabetics.

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