Developing a Wellness Program for Patients With or At Risk for Type 2 Diabetes

Authors: Alessandra Clark, DO, Sydne Ford, MD, Brianna Grigsby, MD and Leila Ali-Akbarian, MD

Introduction

- Diabetes is the 7th leading cause of death in the USA, claiming the lives of 79, 535 people per year and leading to complications and reduced quality of life in even greater numbers of people (1).
- It is a disease that disproportionately affects Hispanic, non-Hispanic black, and American Indian populations, which make up a 49.3% of our Tucson (1, 2).
- The National Health Interview Survey demonstrated a socioeconomic gradient in diabetes-related mortality, with education and income being important determinants of the risk of death (3).
- The goal of this project was to develop a group educational model, within the BUMC Alvernon Family Medicine clinic, that would help improve metabolic control and quality of life for diabetic patients and patients at risk for diabetes, by advocating lifestyle change.

Methods

English-speaking patients were recruited via flyers in the clinic lobby and through recommendations from the patients' provider. Group sessions that included practical information on nutrition, exercise, and stress reduction were held monthly over 4 months. Classes #1, #3, and #4 were based on a low glycemic index diet and weight loss. Classes #1-3 were held at BUMC Alvernon Family Medicine clinic and class #4 was held at a teaching kitchen at a local market, Natural Grocers. Class #2 was based on exercise and stress reduction. Pre- and post-surveys were collected for each class, evaluating patient's self-assessment of their knowledge on exercise, stress reduction, nutrition and its effects on diabetes, their motivation, and their confidence in their ability to make changes. Descriptive statistics were produced in order to determine the impact of each class.

Results

Class 1 (Didactic with Demo)

	Q1 Pre	Q1Post	Q2 Pre	Q2 Post	Q3 Pre	Q3 Post	Q4 Pre	Q4 Post	Q6 Pre	Q6 Post
Median	5.00	5.00	3.00	4.50	5.00	5.00	5.00	5.00	2.000	1.5000

Class 3 (Conversational Teaching with Demo)

	Q1 Pre	Q1 Post	Q2 Pre	Q2 Post	O3 Pre	Q3 Post	Q4 Pre	Q4 Post	Q6 Pre	Q6 Post
Median	3.00	5.00	2.00	4.00	3.00	4.00	3.50	5.00	3.0000	2.0000

Class 4 (Demo Integrated with Conversational Teaching)

	Q1 Pre	Q1 Post	Q2 Pre	Q2 Post	Q3 Pre	Q3 Post	Q4 Pre	Q4 Post	Q6 Pre	Q6 Post
Median	5.00	5.00	3.00	4.00	3.00	4.50	3.00	5.00	1.0000	1.0000

Question 5 RE: Low GI Food Choices

Class 1
Percent Correct Pre Class: 33.33%
Percent Correct Post Class: 66.67%

Class 3
Percent Correct Pre Class: 0%
Percent Correct Post Class: 60%

Class 4
Percent Correct Pre Class: 66.67%
Percent Correct Post Class: **100%**

Conclusions

- More women attended than men
- Practical classes yielded more engagement and greater objective knowledge
- Results appear confounded by return participants and better baseline knowledge at later classes
- Participants seemed more interested in nutrition vs exercise/stress reduction class
- Increase in knowledge and confidence in all classes
- Limitations include small number of participants and possible confirmation and selection biases

References

1. "National Center for Health Statistics." *Centers for Disease Control and Prevention*, Centers for Disease Control and Prevention, 17 Mar. 2017, www.cdc.gov/nchs/fastats/leading-causes-of-death.htm.
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3. Saydah, Sharon, and Kimberly Lochner. "Socioeconomic Status and Risk of Diabetes-Related Mortality in the U.S." *Public Health Reports*, vol. 125, no. 3, 2010, pp. 377–388., doi:10.1177/003335491012500306.