Diabetic Pitfall Intervention Curriculum Lancaster County

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Palmetto Tri-County Internal Medicine
Lancaster, S.C.

- Karen Dardaeu, clinical dietitian
- Joy Whitaker, RN
- F. Michael Kimbrell, MD
- Julie Bowers, CFNP
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Problem

- In 1998 the prevalence of diabetes in the Lancaster population was higher than the national average. (Lancaster-6.4, national-5.9, state-5.7)
- Newly diagnosed diabetics are informed about dietary control of their condition. However patients are often confused about exactly what they should and should not eat.
- The Diabetic Education Center was established to approach this problem.
- There continues to be specific areas of confusion that result in significant impairment in the dietary management of diabetes.

Aim

- Karen Dardeau and Dr. Kimbrell Identified specific areas of confusion that they believe could benefit from supplemental instruction.
- The focus of this curriculum was to resolve these confusing issues within a subset of the Lancaster population as an initial trial.
- The areas of focus were: serving size in carbohydrate counting, fatty diet & sedentary lifestyle, milk and fruit as carbohydrates, corn/potatoes as carbohydrates.
- I wanted to improve the management of diabetes mellitus in a random subset of the Lancaster population.

Measures

- Improvement in patients scores on pre- and post-information session examinations.
- Avoidance of newly identified "pitfalls" as demonstrated on patients daily food journals at follow-up.
- Decrease in the amount of unexpected fluctuations in blood glucose levels demonstrated by daily checks documented in patient's food diaries.
- Feedback from health care providers with regard to specific patients after implementation of "pitfall" avoidance strategies.
- Feedback from the patients about the impact of the information.

Possible Changes for Improvement

Development of a diabetic pitfall avoidance curriculum

Drivers:

-Easy access to diabetic resources from the Diabetic Education Center.

-Easy identification of problematic patients through the Diabetic Education Center.

-Access to clinical dietitian.

Barriers:

-Financial constraints of the families
-Low educational level of some patients
-Low compliance of patients with regard to follow-up visits
-Physical disabilities

PDSA Cycle
Plan

- To design a curriculum that addresses specific deficiencies in the knowledge base of identified diabetic patients.
- To improve patient’s scores on pre- and post-test examinations.

PDSA Cycle
Do

- Identified area specific problems in diabetic management.
- Identified specific areas of confusion with regards to the diabetic diet.
- Submitted preliminary curriculum to healthcare professionals for approval.
- Identified target population for curriculum.
- Administered pre-test and curriculum to patients.
- Assessed progress and administered post-test at follow-up.
- I predicted that there would be an increase in scores on the post-test.

PDSA Cycle
Study

Data:

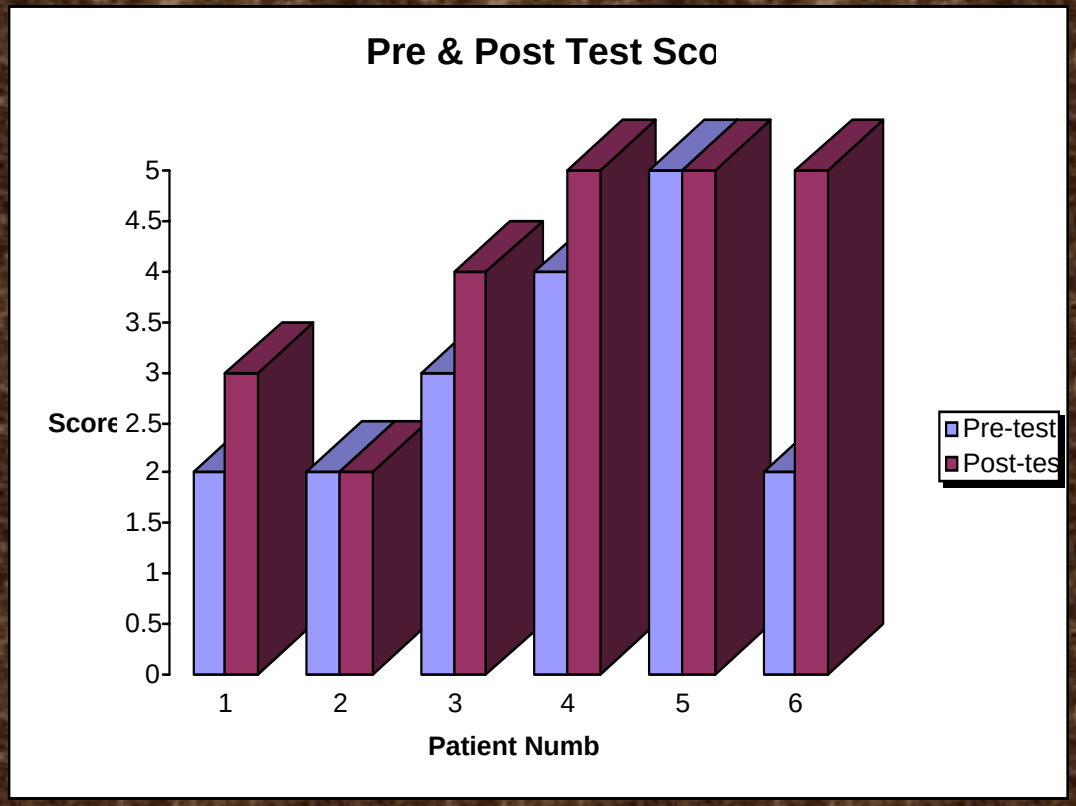
-The pre-test and post-test data were collected from all six patients.

-Follow-up food diaries were obtained from two of the six patients.

-I was not able to receive feedback from healthcare providers because patients didn’t keep follow-up visits and due to time constraints.

PDSA Cycle Study

Data cont'd:



Avg. Pre-test score: 2.7

Avg. Post-test score: 3.7

N=6

PDSA Cycle Study

Data cont'd:

-Of the two patients who completed the food diaries I found that patients were avoiding identified pitfalls.

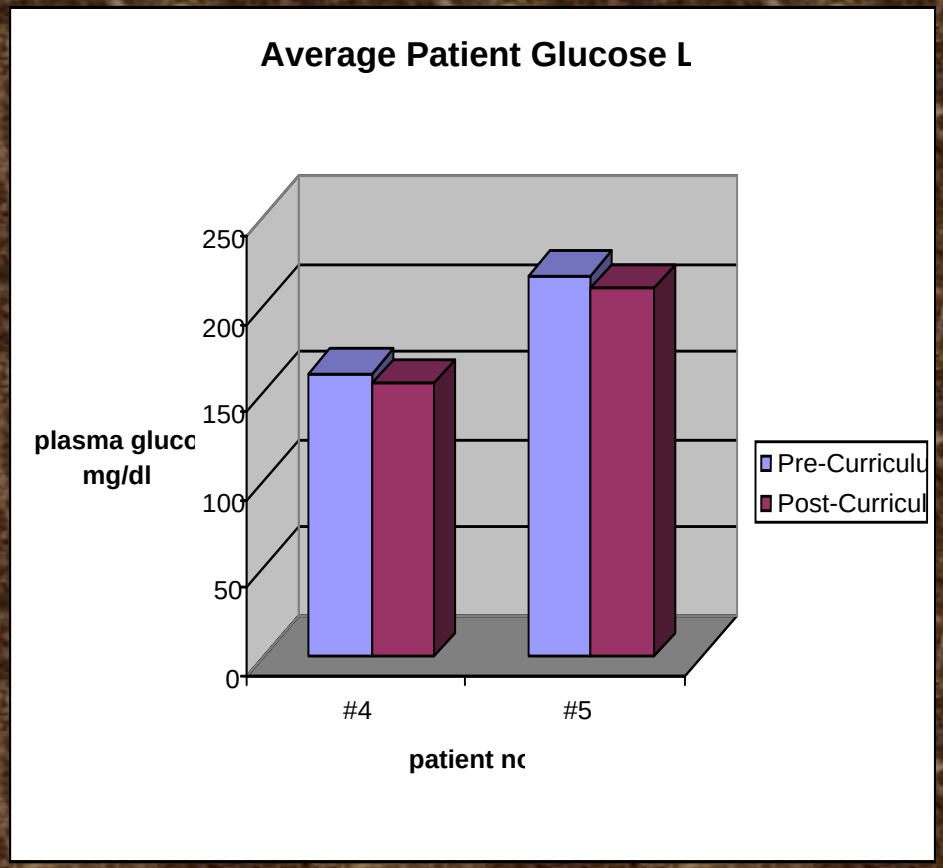
-Patient #4 acknowledged and therefore counted milk in his cereal as a source of carbohydrate.

-Patient #5 demonstrated an understanding of serving sizes on his food diary.

PDSA Cycle Study

Data cont'd:

-There were no significant changes in the blood glucose level before and after the curriculum. This data is limited to the two patients who complied with expectations.



PDSA Cycle
Act

- In the future I believe it would be beneficial to focus on these specific areas during diabetic counseling.
- The established curriculum can be used as a template for further supplemental instruction.

Lessons Learned

- Patient compliance can be an obstacle to appropriate collection of data.
- A more elaborate method of measuring fluctuations in blood glucose levels is needed for accurate analysis of an effect.
- Physical limitations of patients can significantly limit their access to healthcare.
- I learned a lot about the diabetic diet.