

Tackling Diabetes through Nutrition Education

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Introduction

- Overview
 - Background, Methodology, Results, Discussion, Recommendations
- Reasons for choosing project
 - Interest in Family Medicine
 - Need was expressed by the clinic



Background

- Nearly 26 million American have diabetes.
- 85.2% of people with type II diabetes are overweight or obese.
- Several studies have shown that diabetes nutrition education will have a positive impact on patients.
 - Diet education
 - Improvements in fasting plasma glucose and HbA1C
 - Significant decreases in body weight and BMI

Methodology

- Patient Surveys- A pre-survey was used to determine the patients' diabetes (controlled or uncontrolled), exercise, and nutrition status. After 2 weeks a post-survey was conducted through phone call to see if a change occurred in exercise frequency and nutrition habits.
- Nutrition booklet- A booklet was created for patients with diabetes (specifically type 2). It contained subsections for healthy tips, sample diet, and recipes. There was also another section for easy exercises.

Methodology

Day 2

Breakfast

- 1/2 cup cooked sugar-free oatmeal, sprinkled with cinnamon
- 2 tablespoons raisins
- 1 cup fat-free milk

Lunch

- Halibut and Chickpea Salad (find recipe on Food Network.com)
- 1 ounce whole grain crackers
- 2 small plums

Dinner

- 1/2 grilled Cornish game hen
- 1/2 cup cooked wild rice
- 1/2 cup stir-fried broccoli with red bell pepper (stir-fry in 1 teaspoon canola oil in a wok over high heat)
- 1/2 cup mixed honeydew and cantaloupe chunks

Snacks

- 3 whole wheat graham crackers
- 1 frozen fruit bar (all fruit, no sugar added)



Meal Plans supplied by foodnetwork.com

Recipes

Crockpot Italian Sausage and Vegetables

This Recipe Serves 4

Ingredients

- 1 (14.5-ounce) can no-salt added diced tomatoes
- 1 teaspoon dried oregano
- 1 teaspoon dried basil
- 1 clove garlic, minced
- 2 teaspoons olive oil
- 4 ready-to-cook Italian turkey sausage links (about 3 ounces each)
- 1 large green pepper, sliced
- 1 medium onion, sliced
- 16 ounces frozen Italian-style vegetables (unseasoned broccoli, cauliflower, carrots, green beans, & zucchini)



Instructions

1. In a small bowl, mix together the diced tomatoes, oregano, basil, and garlic. Set aside.
2. Heat the oil in a medium sauté pan over medium-high heat. Add the sausage and sauté for about 2 minutes per side until brown. Remove from the pan.
3. Layer the green peppers and onions on the bottom of the crock pot.
4. Place the Italian sausage links on top of the pepper and onion mixture. Pour frozen Italian vegetables on top of Italian sausage.
5. Pour the diced tomatoes mixture on top of the Italian sausage.
6. Place the cover on the crock pot. Cook on low setting for 6 hours or until done (cooking times vary based on the crock pot).

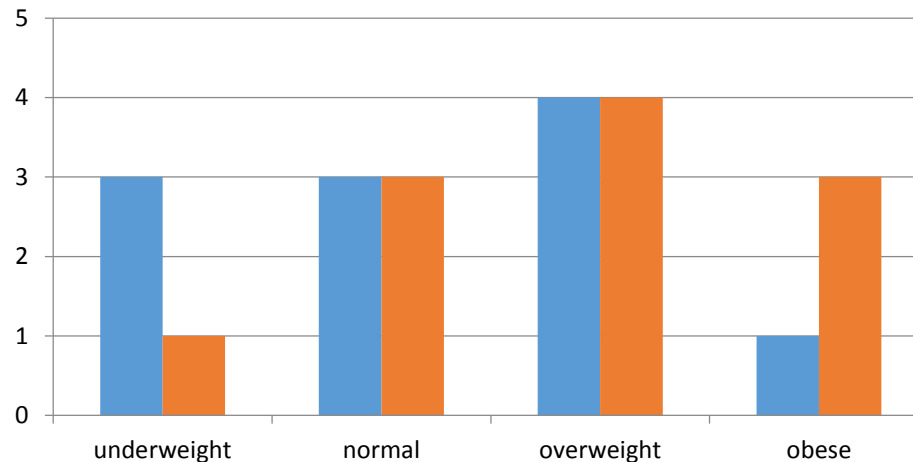
Recipe Cost: \$8.93

Nutritional Facts				
Serving Size: 1 1/4 cup				
Calories	Carbohydrate	Protein	Fat	Saturated Fat
245	16 g	21 g	11.0 g	2.1 g
Sugar	Dietary Fiber	Cholesterol	Sodium	Potassium
8 g	5 g	70 mg	570 mg	805 mg

Results

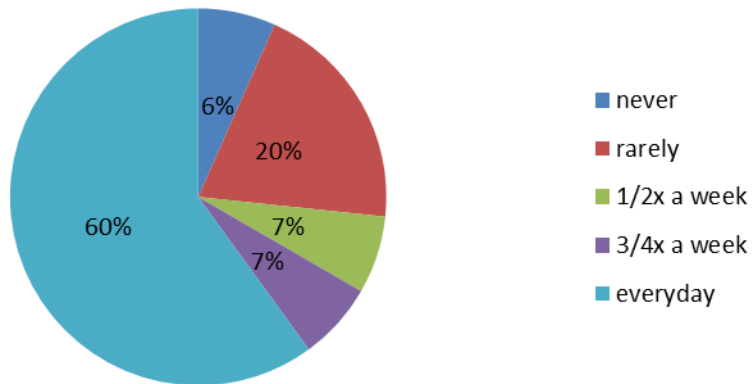
- 16 pre-surveys were conducted, 15 patients granted consent for a post 2 week phone survey
- 5 post-surveys were conducted

Weight **Perception** vs **Actual**

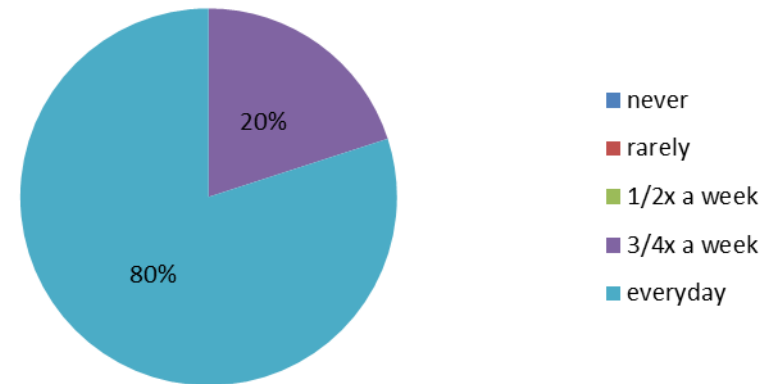


Results

Frequency of Fruits Consumed Pre Survey

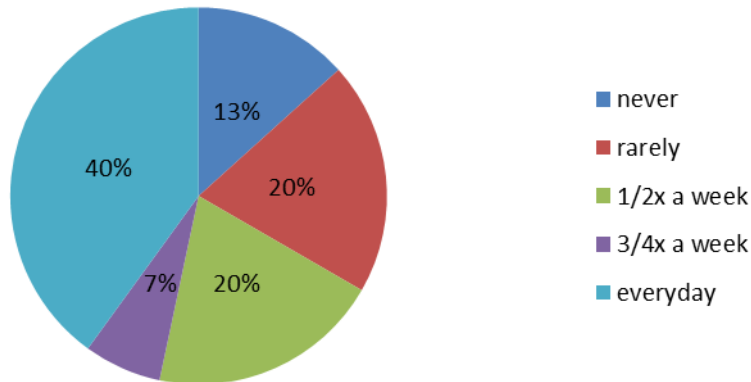


Frequency of Fruits Consumed Post Survey

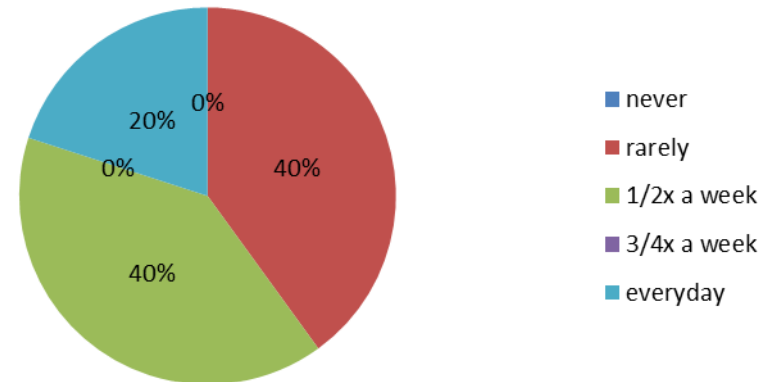


Results

Frequency of Junk Food Consumed Pre Survey



Frequency of Junk Food Consumed Post Survey



Discussion

- Why are patients' perceptions of weight lower than their actual weight?
- Survey results are not a proper representation of the clinic as a whole because of the low number of responses.
- It was difficult to get in contact with patients by phone for the post-survey interview, thus the low number of post-surveys.
- Patients may have been overwhelmed by the number of people who came to speak to/interview them before the doctor came. This may have affected how they answered.

Recommendations

- Have diabetes nutrition information available to diabetic patients who may be struggling with keeping their blood glucose under control.
- Possibly extend the Diabetes Clinic hours to accommodate patients who may not be able to make it on Thursday mornings for the extra education.

Conclusion

- Diabetes is a prevalent issue in the United States.
- Diet and nutrition education is important in combatting the disease.
- Diabetes nutrition booklets may be helpful in educating patients on following a healthy diet and exercise plan.
- Improvements in eating habits were shown in the patients that completed the post-survey.

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