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A Quick Guide To Eating Healthy with Type II Diabetes

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A Quick Guide To Eating Healthy with Type II Diabetes

By Caleb Watkins

Family Medicine Clerkship: March 2019

Location: Rockingham Health Center, Bellows Falls, VT

Project Mentor: Dr. Robert Schwartz



Problem Identification

- Quickly after beginning my clerkship at the Rockingham Health Center with Dr. Schwartz, I noticed that one of the most common reasons for having an appointment was “diabetes follow-up.”
- Many of these patients struggled with managing necessary lifestyle modifications, particularly around nutrition.
- Therefore, I focused my project on educating patients about how to eat healthy with diabetes.



Public Health Cost of Diabetes in the U.S.

- The public health cost of diabetes has been rising steadily over the past few years.
- In 2012, the cost was estimated to be **\$245 billion**.
- In 2017, this increased to **\$327 billion** (26% over 5 years)
- The majority of these costs come from inpatient care, prescription medications to treat complications of diabetes, and prescription medications to treat diabetes.
- Many of these costs could be significantly reduced with lifestyle and diet modifications alone.



Public Health Cost of Diabetes in Vermont

- **10%** (55,780) of the adult population in Vermont suffers from diabetes.
- **3%** (16,000) of the population likely have diabetes but are unaware.
- An additional **35.7%** (174,000) of Vermonters have prediabetes.
- Direct medical expenses for all types of diabetes in Vermont was **\$360 million** in 2017 with up to an additional **\$160 million** lost due to decreased productivity related to diabetes.



Community perspectives

- **Interview 1: Jill McKenny, R.D., Community Health Team, Springfield Medical Care Systems, VT**
 - McKenny agreed that type II diabetes was a major issue in this region.
 - McKenny provided useful information about managing diabetes with lifestyle modifications.
 - We also discussed common misconceptions that patients with diabetes have regarding nutrition, including:
 - “All fruits are off limits”
 - “All breads are off limits,” and
 - “Sugar free items are healthy”



Community perspectives

- **Interview 2: Dr. Robert Schwartz, M.D., Rockingham Health Center, Bellows Falls, VT**
 - Dr. Schwartz and I discussed the care of patients with diabetes and pre-diabetes regularly.
 - Many of his patients with newly diagnosed diabetes or pre-diabetes initially struggle with dietary and lifestyle modifications.
 - Dr. Schwartz counsels these patients about the importance of proper nutrition and other lifestyle modifications in order to prevent the progression and complications of diabetes.
 - Many of these patients are able to control, or limit the progression of, their diabetes by making lifestyle changes +/- anti-diabetic medications like metformin.
 - However, some patients continue to struggle with their nutrition and could use additional counseling and resources.



Intervention & Methodology

- I created a one-paged, double-sided handout.
- The handout is designed to give patients a brief, easy to digest, overview about eating healthy with diabetes.

A Quick Guide to Healthy Eating with Diabetes

What is Diabetes?

Diabetes is a disease that causes your blood sugar [glucose] to be too high. This is because your body doesn't have enough insulin or doesn't use insulin effectively.

Why is diabetic management important?

Uncontrolled diabetes can increase your risk of developing heart disease, nerve disease, kidney disease, eye disease, foot damage, and infections.



Healthy Food Choices

Fruits and Vegetables

apples, oranges, peaches, berries, mangoes, carrots, dark leafy greens, and broccoli

Lean Proteins

chicken, turkey, lean beef, white fish, yogurt, low-fat milk, beans, and peanut butter

Healthy Fats

salmon, tuna, avocado, eggs, nuts, seeds, and olive oil

Stay Hydrated!

Dehydration can increase your blood sugar levels

Foods to Limit

High Carbohydrate Foods

breads, rice, pasta, and dry cereals

Starchy Vegetables

potatoes, french fries, potato chips, and corn

Sugary Beverages

soda, sweetened teas, sports drinks (e.g., Gatorade), and fruit juice

Common Misconceptions about Diabetes Management

“All carbohydrates are bad”

It is all about quantity, quality, and balance. Whole fruits are a healthy source of carbs because they have fiber, which helps to slow the absorption of sugar into your body. Eating protein with fruits (e.g., apple with peanut butter) will slow the absorption of sugars even more!

“Artificial sweeteners are a good alternative”

We do not yet fully understand the effect of artificial sweeteners on our bodies. Artificial sweeteners may worsen glucose intolerance. It is best to limit the consumption of these substances.

“Bread, pasta, cookies, and other high carb foods are off limits”

These foods can still be enjoyed by managing your portion sizes and eating a balanced meal. Diabetes.org recommends the following portion sizes:

Bread	One Slice	Rice or Cooked Pasta	1/3 Cup
Dry Cereal	3/4 Cup	Potato or Corn	1/2 Cup

Resources for Diabetes Management

ChooseMyPlate.gov

Provides practical information about building a balanced diet with an easy-to-use visual format

DiabetesEducator.org

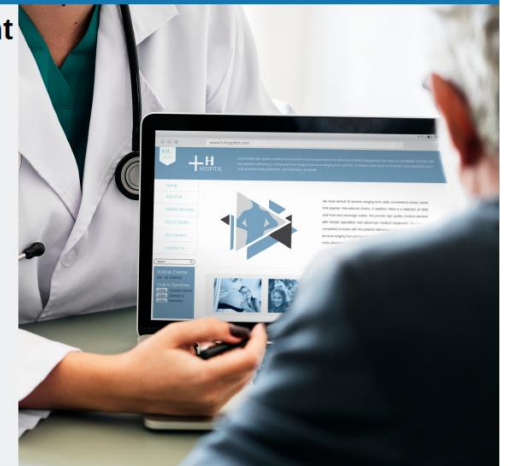
Provides information about a variety of topics important to patients living with diabetes

CDC.gov/diabetes/management/eat-well

Provides science-based information about nutrition and weight-loss planning

NIDDK.nih.gov

Provides useful tips about serving sizes, grocery shopping, eating out, and more



Next Steps

1

Keep a food diary for a day

Write down all the foods, including how much, you eat in a day to track the kinds of food you eating and how many calories you are consuming each day

2

Meet with your Primary Care Provider

Your PCP can help create an action plan and set goals for your diabetes management

3

Make an appointment with our Registered Dietitian

Jill McKenney, RD, Community Health Team
Phone: 802-886-8907
Email: jmckenney@springfieldmed.org

Notes

Results & Responses

- Dr. Schwartz stated that the handout looked professional and included information that is useful to his patients.
- The handout is available for printing and distribution to patients at the Rockingham Health Center.

Evaluation of Effectiveness

- A formal evaluation of effectiveness has not yet been performed.
- Methodology for evaluating the effectiveness of the handout could include a brief follow up survey asking patients how helpful they thought the handout was and if they have made any changes based on the information in the handout.
- Additionally, metrics related to diabetes, such as hemoglobin A1c, blood glucose, lipids, & waist circumference, could be collected at a three- or six-month follow-up visits and compared to pre-handout metrics.



Limitations

- Patients have not been consulted regarding the perceived usefulness of the handout.
- Patients have not been consulted regarding what they would like to see on the handout.
- Due to time constraints, the efficacy of the handout has not yet been examined.

Future directions

- While the handout may be useful, it is still necessary to examine why the handout is necessary to begin with. Future interventions should focus on identifying additional barriers to making lifestyle modifications in addition to making educational information more easily available to patients.
- Future interventions should take patient recommendations into account. Understanding what patients want to know more about in relation to their diabetes will be instrumental in creating useful educational material.
- The efficacy of this intervention should be examined.

References

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Thank you for agreeing to be interviewed. This project is a requirement for the Family Medicine clerkship. It will be stored on the Dana Library ScholarWorks website. Your name will be attached to your interview and you may be cited directly or indirectly in subsequent unpublished or published work. The interviewer affirms that he/she has explained the nature and purpose of this project. The interviewee affirms that he/she has consented to this interview. Yes / No If not consenting as above: please add the interviewee names here for the department of Family Medicine information only. Name:

Jill McKenny, R.D.

Thank you for agreeing to be interviewed. This project is a requirement for the Family Medicine clerkship. It will be stored on the Dana Library ScholarWorks website. Your name will be attached to your interview and you may be cited directly or indirectly in subsequent unpublished or published work. The interviewer affirms that he/she has explained the nature and purpose of this project. The interviewee affirms that he/she has consented to this interview. Yes / No If not consenting as above: please add the interviewee names here for the department of Family Medicine information only. Name:

Dr. Robert Schwartz, M.D.