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Patient Education: Assessing the Barriers to Utilize & Create Effective Educational Resources for Type 2 Diabetes Mellitus (T2DM)

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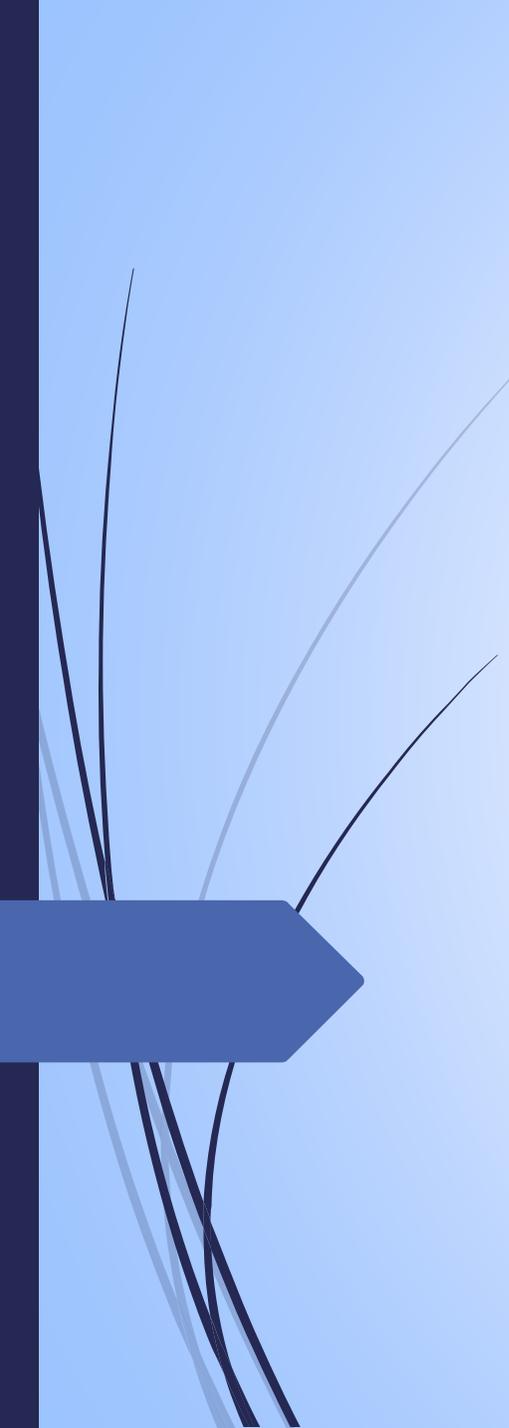


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Patient Education:
Assessing the Barriers to Utilize & Create
Effective Educational Resources for
Type 2 Diabetes Mellitus (T2DM)

Rutland Community Health Center

Alexandra Miller MS 3 and Dr. R. Baker MD
Family Medicine Clerkship August 2016

Problem identification and need

- ▶ Despite a myriad of diabetic information, group classes and diabetic patient educators, patient's with poorly controlled diabetes persist.
- ▶ Weight loss, diet and lifestyle modifications are often the first approach in treatment. These changes are difficult to make.
- ▶ I began enquiring about the diabetic patient educational resources and three thoughts came to mind:
 1. What are the barriers and challenges that patients face in regards to accessing and utilizing diabetes educational resources?
 2. Are health care providers utilizing these resources and if not, why?
 3. How do you create useful patient education material?
- ▶ To answer these questions I spoke to Joanie Maslack and Michele Redmond, who are both RNs and diabetic educators in the Rutland area, Corissa Burnell, a community health worker at Rutland Regional Medical Center and Robin Edelman MS, RD, CDE at the Vermont Department of Health

Diabetes: A Public Health Issue

- ▶ Almost 30 million Americans have diabetes

Diabetes in Vermont:

- ▶ 55 780 have diabetes – about 10% of Vermont's population
- ▶ 174 000 are pre-diabetic – about 35.7% of Vermont's population
- ▶ Incidence of diabetes is higher in Vermonters with less education
- ▶ Annual cost due to diabetes = \$543 million

Additional expenditures in Vermont:

- ▶ In 2015, \$2,656,373 was invested in diabetes research (National Institute of Diabetes and Digestive and Kidney Diseases)
- ▶ \$196,936 spent on diabetes prevention educational programs (CDC)

Community Perspective: Assessing the barriers

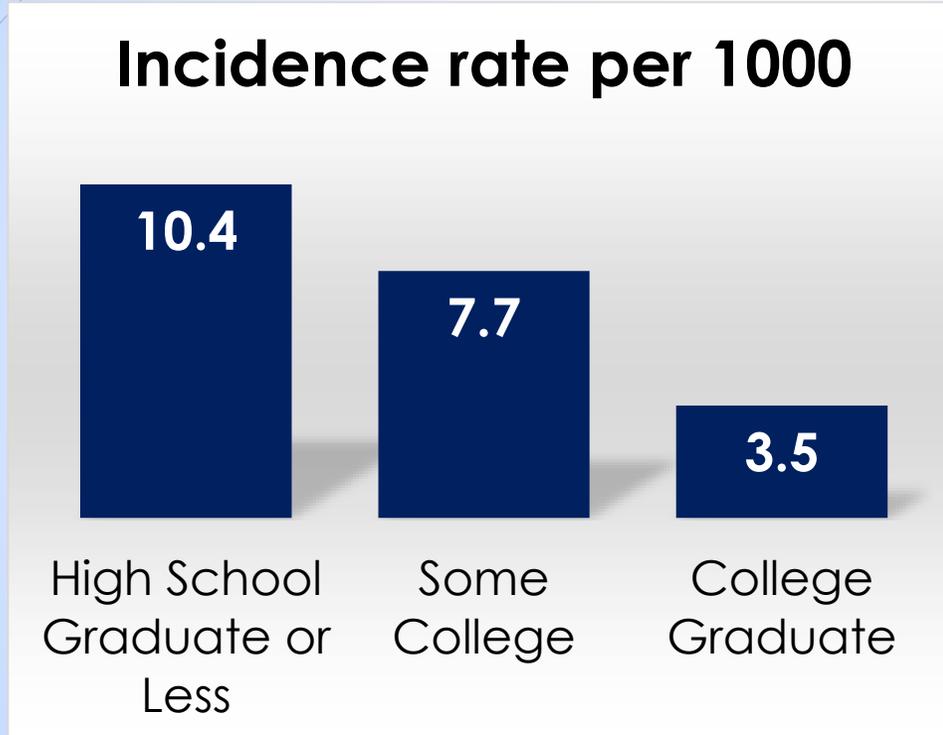
Making Behavioral Changes

- ▶ “Our patient’s don’t feel differently so it is hard to want to make changes” Robin
- ▶ “It’s hard for our patients to learn about making changes to prevent things that could happen in 10 years down the road when they are trying to make ends meet day-to-day” Joanie
- ▶ “Patient’s lack support from those around them. Change is not easy, so we encourage participants to bring family with them so that they can truly understand what kind of support will be necessary for success. In the end however, patients must want to make the change for themselves and we try to offer the tools to make that happen” Corissa

Patient Education

- ▶ “Commitment and transport are barriers for patients to attend the diabetes self-management and diabetes prevention classes” Corissa
- ▶ I learned from speaking with Michele Redmond that a patient has to be referred by their primary care provider for an Initial visit with a diabetes educator to access five two-hour sessions. Medicaid/Medicare will cover group classes but Federal Qualified Health Centers only cover one-to-one meetings and there is not enough diabetic educators to meet the need.
- ▶ Developing resources is a complex process. Focus groups, readability assessments, printing costs, graphic design and keeping information current are just a few aspects of product development that I discussed with Robin Edelman at the Vt. Dept. of Health.

Diabetes Incidence & Education Level



Source: Vermont Behavioral Risk Factor Surveillance System, 2008-2010

- Most patient education material is written to a sixth grade reading level.
- US Centers for Medicare and Medicaid Services use the “Simple Measure of Gobbledygook” or SMOG to assess reading level.
- Color printing is cost prohibitive for many doctor’s offices
- Patient’s level of education varies and finding a “one size fits all approach” is challenging



Intervention and Methodology

- ▶ Medical assistants, nurses and health care providers were surveyed to identify perceived barriers and referral practices in regards to diabetic education resources.
- ▶ Findings from the convenience sample data will be shared among the local entities invested in diabetes education in order to improve patient access to groups and resources.
- ▶ A carb-counting worksheet was created for staff to try to increase awareness of the complexity of the tasks we ask of our patient's.

Responses on a Likert Scale From Staff Survey

How Frequently do Patient's Ask For



How Frequently Do You Offer



■ Very Frequently ■ Frequently ■ Occasionally ■ Rarely ■ Never

N= 10
(all staff)

Time Constraints Are The Biggest Barrier To Counsel Patient's About Diet And Lifestyle Modifications



I Prefer To Counsel My Patient's About Diet And Lifestyle Modifications



■ Strongly Agree ■ Agree ■ Neutral ■ Disagree ■ Strongly Disagree

N= 3
(MD or PA only)

Discussion From Staff Survey:

- ▶ One provider “didn’t know about this program” in regards to the 12 month Diabetes's Prevention Program Hosted By the Rutland Regional Medical Center.
- ▶ Counselling patient's about diet and exercise is provider specific, responses were distributed equally in three of five choices.
- ▶ Referral to a Diabetic Educator is also provider specific. Some providers **Always** refer new T2DM patients to an educator and others only **sometimes**.
- ▶ Responses varied regarding patient's requests and staff utilization of handouts.
- ▶ There appears to be no standard practice in regards to utilizing patient education materials or diabetic educators.



Evaluation of effectiveness and limitations

- ▶ The diabetic educators at the Rutland Community Health Centers are moving toward a new curriculum. The barriers and limitations of this curriculum will have to be addressed.
- ▶ Due to time and geographical constraints, not all health care providers in the affiliate sites were surveyed which limits our understanding of how well utilized the program at Rutland Regional Medical Center actually is by local diabetic patients.
- ▶ Summer time is a difficult time to survey staff due to vacations and schedules. Staff are extremely busy and can be hard to access. Survey Response rate was very low.
- ▶ The study did not take into consideration comorbidities of diabetic patients which could also present as barriers to utilizing educational resources.



Recommendations for future interventions/projects

- ▶ Assess the effectiveness of patient education resources by using outcome measures such as weight, hemoglobin A1c, hospital visits.
- ▶ Group classes through the diabetic outreach program at the Rutland Regional Medical Center do not require a referral however a referral may increase attendance. Health care providers may choose to make this referral if there are measurable outcomes and improvements to their patients health.
- ▶ Patient's barriers (transportation, commitment, support) could be identified and referred to appropriate social services.
- ▶ The FQHC requirement of a one-to-one diabetic educator sessions places limitations on the number of patient's receiving these services at any one time. The cost, quality and outcomes of one-to-one versus group classes need to be studied in order to change this requirement and meet the demands of the population served.
- ▶ Provide guidelines for best practices regarding referrals to diabetic educators.



References



- ▶ Slide 3: Vermont Statistics: The burden of diabetes in Vermont published by the American Diabetes Association. Available online:
<http://main.diabetes.org/dorg/PDFs/Advocacy/burden-of-diabetes/vermont.pdf>
- ▶ Slide 5: 2012 Diabetes Data Pages. Vermont Department of Health 2013, slide 11. Available online:
http://www.healthvermont.gov/prevent/diabetes/documents/diabetes_data_pages_2012.pdf
- ▶ Slide 5: Farnsworth, M. (2014). Differences in Perceived Difficulty in Print and Online Patient Education Materials. *The Permanente Journal*, 18(4), 45–50.
<http://doi.org/10.7812/TPP/14-008>