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Evaluating knowledge and educating patients about diabetic retinopathy screening in Washington County, VT



The University of Vermont

LARNER COLLEGE OF MEDICINE

Delaney Curran, Class of 2022

Mentor: Dr. Christine Payne

Family Medicine – Waterbury

July – August 2020

Problem Identification

- Diabetic retinopathy is the leading cause of blindness in working-age Americans (1).
- It has long been shown that early detection and treatment of diabetic retinopathy is effective at reducing vision loss (2).
- Therefore, annual dilated eye exams in those with diabetes are recommended
- Current adherence to annual screening is low
 - Only 25% to 80% of people with diabetes are receiving annual screening (3-5)
- Commonly cited barriers to screening include finances, inadequate patient education and poor access to care (6)

Public Health Costs

- It has been shown that early detection of diabetic retinopathy and subsequent treatment is cost-effective
- Studies show that annually, \$472 million dollars could be saved if everyone with type 2 diabetes mellitus in the US were to be screened (7)
- Specifically in Vermont, only 67 percent of people with diabetes are receiving annual eye exams (8)

Community Perspective

Nancy Wagner, RDN, CDE, Health Coordinator for CVMC

- “In general, I think the barriers to screening are accessibility, people don’t have the transportation to get there. And also they have so many doctor’s appointments and this is just one more appointment that they have to make, so I think those are the big ones and maybe we don’t push enough the importance of it, although I try to ask about it and so do the doctors. ”
- “What I like to tell people is that this is preventative so what the eye doctor is going to look for is ‘is there any damage and how much damage’ and a lot of the damage we can stop and they can do laser surgery and prevent it from getting worse so it’s important to get it early”

Jaclyn Holden, QI for CVMC Primary Care

- “If there is a video that a patient is told to watch while they are at the doctor’s office for a specific appointment... I think they will feel like it’s more important to the provider and therefore they would care more themselves.”

Intervention and Methodology

- SurveyMonkey was used to create a survey with patient-friendly language consisting of:
 - 5 pre-test questions to assess current understanding of diabetic retinopathy and whether they have had an exam in the past year
 - A 2-minute educational video (9) that explains diabetic retinopathy and the importance of screening and blood sugar control
 - 2 post-test questions to assess their interest in getting an eye checkup
 - A prompt to contact the office if they need any assistance in obtaining eye care
- The survey and video were administered to patients in the patient's room by Delaney Curran, MS3

Diabetes and Eye Care Survey

1. Can diabetes cause blindness?
 - a. Yes
 - b. No
 - c. Unsure
2. Can good management of your blood sugar prevent eye disease?
 - a. Yes
 - b. No
 - c. Unsure
3. If your vision is normal, do you need to be screened for eye disease?
 - a. Yes
 - b. No
 - c. Unsure
4. How often should a person with diabetes get an eye checkup?
 - a. Every 6 months
 - b. Every year
 - c. Every 2 years
 - d. Only when vision changes

5. Have your eyes been checked by an eye doctor in the past year?
 - a. Yes
 - b. No
 - c. Unsure

Please watch this brief 2 minute video

5. After watching this video, how has your interest in getting an eye exam changed?
 - a. Much less interested now
 - b. Somewhat less interested now
 - c. No change in interest
 - d. Somewhat more interested now
 - e. Much more interested now
6. Would you be interested in our office assisting you in finding an eye doctor or setting up an appointment?
 5. Yes
 6. No
 7. Maybe

Thank you for taking the time to complete this survey! Please let someone in the office know if you have any questions, need help finding an eye doctor, or would like assistance in setting up an appointment.

Results

- 100% knew that diabetes can cause blindness
- 78% knew that good management of blood sugar prevents eye disease
- 78% knew that they should see an eye doctor annually
- 55% have been to the eye doctor in the last year
- 33% thought that an eye appointment was unnecessary if their vision was normal
- Anecdotally, several patients commented that this was a good reminder to schedule their appointment

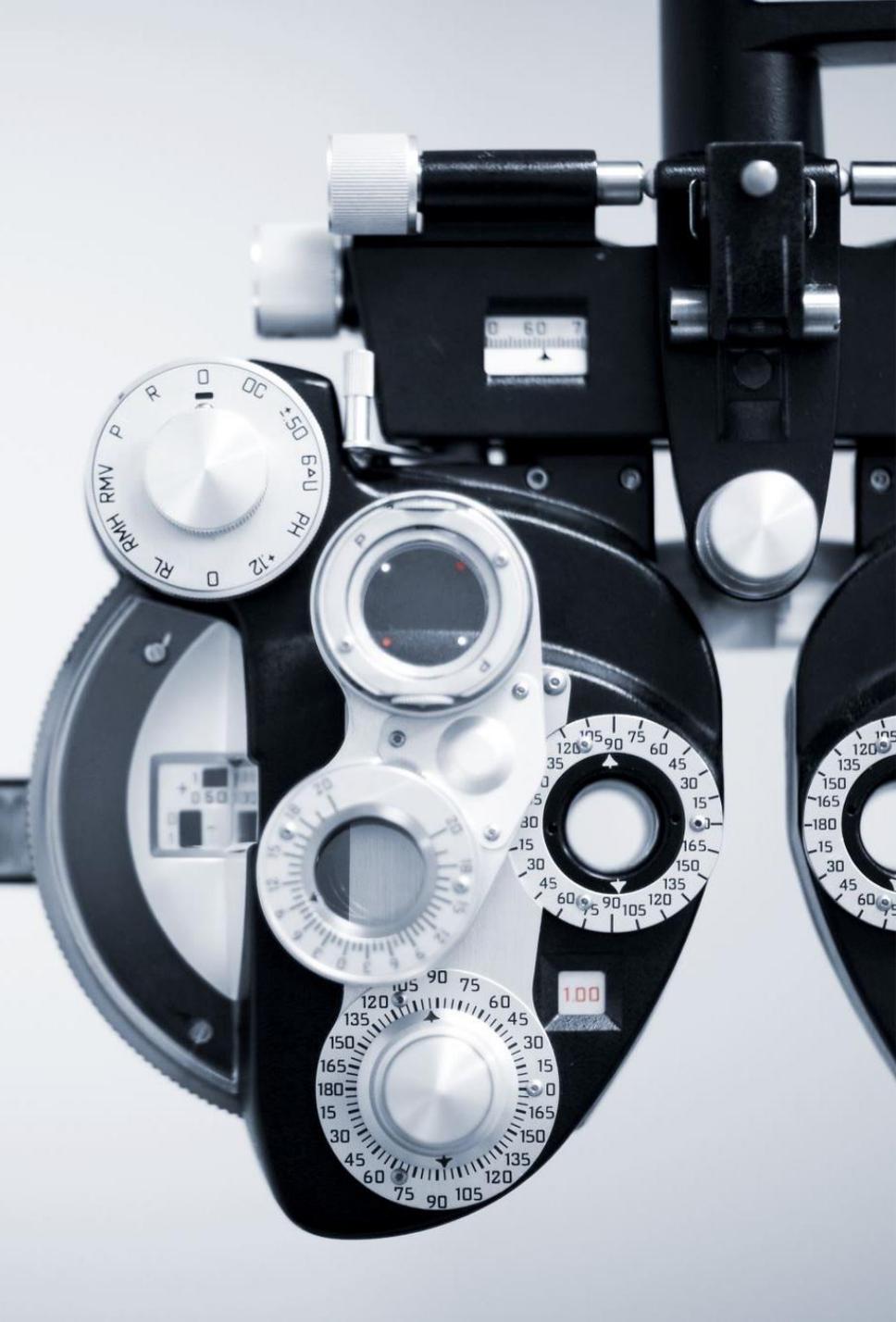
Effectiveness and Limitations

Effectiveness:

- 55% of patients were more interested in an eye exam after watching the video
- 0% of patients were interested in assistance from office staff
- Assessing whether they went to the eye doctor at their next appointment would help evaluate the value of the intervention

Limitations:

- Only patients at CVMC – Waterbury were surveyed, making results less generalizable
- Sample size was low (n=9)



Future Interventions

- Providers should ensure that patients have a good understanding of the importance of annual eye exams
- Provide the video to patients across the entire health network, possibly using MyChart
- Altering work-flow at the office to make it automatic that the office sets up eye appointments for each patient
- Assessing for further barriers that make it difficult for patients to access eye care, such as insurance coverage, transportation, and communication problems

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