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Promoting Healthy and Active lifestyles with Home Exercises in South Burlington, VT

Jonathan Gau MS3
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Primary Preceptor: Dr. Maloney (Colchester office)
Problem Identification

- In regards to obesity, while Vermont has consistently ranked well in the country (currently ranked 40th in the country with 27.6% of the population being obese), there has been a steady upward trend in the past two decades
  - A total 10% increase from 17% in 2000
  - In Chittendon County alone, a out 21% are obese
  - According to CDC, more than half of the state population at 57.7% is considered overweight.
- Heart disease is ranked as 2nd leading cause of death in Vermont since 2013
- Over 10% of VT adult population has diabetes
  - In the past year, diabetes increased 12%, from 8.2% to 10% in adults
  - 16,000 have diabetes and do not know
  - 35.7% have prediabetes
- 20.2% of Vermont’s adults reported in last month, that they had not participated in any physical activity
  - With primary factors, not limited to, but including weather limitations, gym membership expense, intimidation of joining a gym, and lack of time.
  - Exposes a need to provide patients with health literacy regarding alternative options of exercise that is not limited by winter weather and expense of gym equipment.
Public Health Cost

- Vermont ranks 12th highest in nation in terms of healthcare spending per person at $6,103
  - According to the American Diabetes Association, diabetes and prediabetes cost estimated $543 million in Vermont each year
- Vermont average spending of $700.5 million per year on pharmaceuticals with large percentage of spending localized around blood pressure medications/statins
Community Perspective

- Community Interviewees:
  - Ben Dorr, Studio Manager at Orange Theory Fitness, Burlington, VT
  - Nicole Williams MS, ACSM EP-C, Director of The Edge Preventative Care

- Takeaways from the interviews
  - Initial visit surveys are taken to understand basic medical questions to help determine if special attention/modifications need to be made.
  - Common barriers to joining a gym tend to be lack of time and finances
  - Other than in-house sessions, no in-home exercises/tips given as it is out of their scope.
**Intervention and Methodology**

- Brochure that provides bodyweight exercises that can be done at home without substantial equipment.
  - Exercises will be separated by difficulty level in order to be modified to each person’s specific capabilities/limitations
  - Basic information will be provided in the brochure on how to perform each exercise, if needed
  - Will give recommendation on how to utilize exercises to create individualized workout plans
  - Recommend how often to perform workouts each week.
  - Also provide additional hints/suggestions on how to achieve best results with the exercises given.
- Make brochures accessible to patients in the waiting room, as well as in patient rooms during visit
- Determine effectiveness of brochure through follow up with patients as well as inquiring office physicians about how often they distribute the brochure and how it is received by patients.
Results

- Created a brochure that provides easy-to-read, clear categories of beginner/intermediate/advanced home exercises for each muscle group. Also provides instructions on how to perform each exercise.

- Physicians and staff at South Burlington Family Medicine Office viewed the brochure positively and believed that it would be beneficial to provide patients.

- Staff appreciated the fact that it is a convenient and simple way to provide patients with a tangible source of information on exercise that can be given in-visit.
Evaluation of effectiveness

- Encourage in-visit distribution of brochures to patients for which it would be beneficial (high blood pressure, diabetes/prediabetes, overweight/obesity, hx of CAD/CVD). This would allow physicians to make record of who received brochure and see whether there are significant changes in lipids/BMI/blood pressure during f/u visits.

- Include in check-in surveys questions on whether patient has received brochure before and whether they tried the exercises provided:
  - If yes, then provide patient with separate survey to determine satisfaction and degree of benefit.

- In regard to distribution in waiting rooms, assess utility of brochure by following how many brochures were taken at the end of each day.
Limitations

• Does not provide alternatives for patients who may be wheelchair bound or otherwise physically disabled
• Limited exercises provided, which may in turn limit its effect on long term health benefits.
• At first glance, may appear wordy and discourage patients from reading
• Patients are unaware of brochures in the waiting room
• Not available in different languages
Future Project Recommendations

- Given that about 26% of VT population has a disability and about 36% are inactive due to a disability, it would be beneficial to include alternative exercises for patients who are wheelchair-bound or physically disabled. For example, including exercises that can be done with resistance bands, or those that can be done sitting.
- Include cardio workouts that would more likely be beneficial to patients with heart disease.
- Suggest diet plans that can be implemented in conjunction with home exercises, because exercise alone is less effective for weight loss.
- Partner with local gyms to create more comprehensive and in-depth exercise routines.
References


