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Recommended Citation

Udawatta, Stephanie, "Addressing Barriers to Physical Activity in Vermont's Geriatric Population" (2020). *Family Medicine Clerkship Student Projects*. 561.
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Addressing Barriers to Physical Activity in Vermont's Geriatric Population

Stephanie Udawatta

Family Medicine Rotation, February 2020

Mentor: Dr. Jacob Shaw, MD, South End Community Health Clinic



The Issue

I encountered a large number of geriatric patients during my family medicine rotation, many of whom would deny participation in physical activity during their health maintenance appointments. They commonly cited one or more of the following reasons as barriers to participating in regular exercise:

- Chronic pain (from arthritis, a “bad back”, etc.)
- Cold weather (many patients enjoy walking outside for exercise)
- Safety (the icy winter sidewalks prevent older patients from walking outside safely; patients also mentioned that the risk of falls/other injuries prevent them from being physically active other times of the year)
- Financial Resources (e.g., being able to afford a gym membership)
- Transportation Resources (being able to drive a car or living close enough to a bus line which stops near fitness facilities)
- Not seeing an obvious need to exercise or fully understanding its benefits

Public Health Perspective

- Physical Inactivity is the fourth leading underlying cause of mortality worldwide (Pratt et al., “The Cost”)
- The WHO estimates that over 3 million people die each year as a direct result of physical inactivity (Pratt et al., “The Cost”)
- Increasing participation in regular, moderate-intensity physical activity is predicted to reduce annual national medical expenditures by over \$76 billion (Pratt et al., “Higher”)
- An osteoporosis-related hip fracture results in about \$90,000 in health care costs per fracture; one in seven Vermont men and one in three Vermont women over the age of fifty will suffer an osteoporosis-related fracture in their lifetime (United Way)



Community Perspective

When asked the following question, “What, in your experience, have been the most common barriers listed by your geriatric patients in regard to participating in physical activity?” the following responses were given:

“The biggest is the fear of falling...so many people can have a truly serious injury [from exercise]. Barriers can include frailty from COPD, vision impairment, arthritis. People in senior groups with access to big gyms [may also] feel intimidated...it can be intimidating and embarrassing for some patients to navigate [complex] exercise equipment.”

–Dr. Stephanie Bellomo, MD, South End Community Health Center

“Pain and fear. Fear that doing these exercises will make them worse, make them sore....Transportation [is an] issue as well.”

–Andrew Filion, ATC, Long Trail Physical Therapy



Staying Well: An Exercise Guide for Vermont Seniors

UVM FAMILY MEDICINE COMMUNITY HEALTH
PROJECT, FEB. 2020

STEPHANIE UDAWATTA, UVM LCOM CO2021
Mentor: DR. JACOB SHAW, MD

Intervention and Methodology

I wanted to adequately understand and address the community's barriers to healthcare, so I:

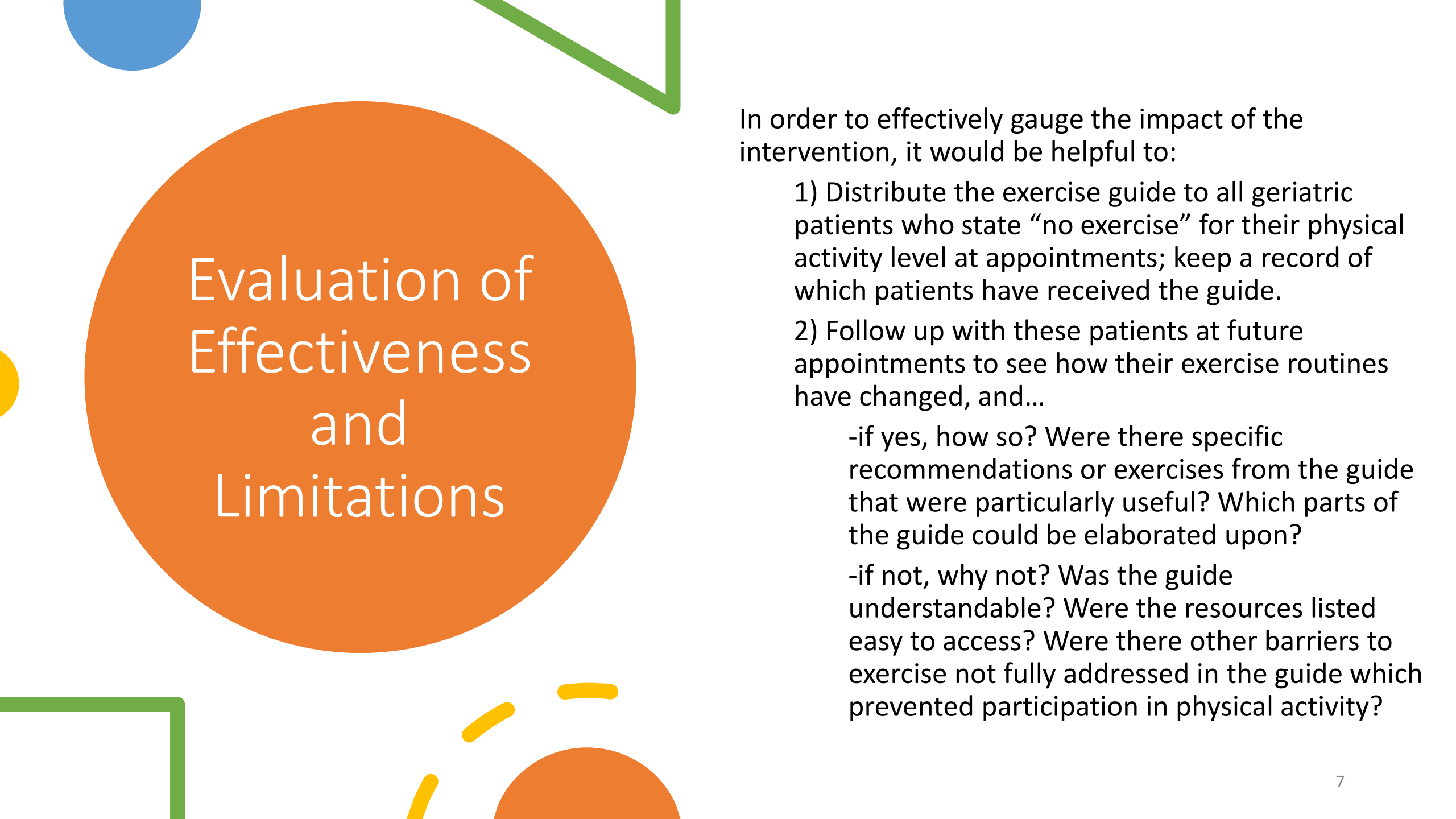
- Asked geriatric patients about unique barriers to exercise at their health maintenance visits (slide 2)
- Asked healthcare providers what they had observed to be barriers to exercise for their geriatric patients (slide 4)
- Researched solutions to the barriers noted, along with the latest evidence on physical activity importance and public health impact
- Planned out an exercise guide that would summarize the results of my research, and which would be distributed to providers at South End Community Health Clinic for their geriatric patients experiencing barriers to physical activity

Results

The result of this research was a 6-page, large-print exercise guide (below) which included:

- Facts about exercise from evidence-based resources
- Senior-friendly, at-home exercises with images and explanations
- Tips on incorporating physical activity in non-traditional ways
- A list of local resources for low-cost, group exercise options





Evaluation of Effectiveness and Limitations

In order to effectively gauge the impact of the intervention, it would be helpful to:

1) Distribute the exercise guide to all geriatric patients who state “no exercise” for their physical activity level at appointments; keep a record of which patients have received the guide.

2) Follow up with these patients at future appointments to see how their exercise routines have changed, and...

-if yes, how so? Were there specific recommendations or exercises from the guide that were particularly useful? Which parts of the guide could be elaborated upon?

-if not, why not? Was the guide understandable? Were the resources listed easy to access? Were there other barriers to exercise not fully addressed in the guide which prevented participation in physical activity?

Recommendations for Future Projects

- Explore barriers to physical activity in unique environments, such as nursing homes with pre-established group fitness classes and gyms
- Arrange a group exercise class that addresses the needs and concerns of geriatric patients (e.g., a class held in a well-lit room with lots of space and stable supports)
- Give a community presentation to a retirement home explaining the benefits of regular physical activity; consider doing this with a doctor and/or physical therapist so that a Q&A may be held afterward
- Explore barriers to physical activity in a separate patient population, such as children from lower-resource neighborhoods



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