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Promoting Physical Activity Using Walking Poles in Senior Citizens of Southern Vermont's Deerfield Valley Region

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Promoting Physical Activity Using Walking Poles in Senior Citizens of Southern Vermont's Deerfield Valley Region

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Rotation 5, 2016
Deerfield Valley Health Center
Wilmington, VT
Mentor: Dr. Peter C. Park
Problem Identification and Description of need

- **Problem 1:** More senior citizens can benefit from participating in leisure time physical activities.
  - Not participating in leisure time physical activity is a risk behavior that is more prevalent in adults 65 and older compared to the adult population as a whole.

<table>
<thead>
<tr>
<th></th>
<th>Vermont</th>
<th>Bennington County</th>
<th>Windham County</th>
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</thead>
<tbody>
<tr>
<td>All adults</td>
<td>18%</td>
<td>19%</td>
<td>20%</td>
</tr>
<tr>
<td>65 and older</td>
<td>29%</td>
<td>30%</td>
<td>25%</td>
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*Table 1. Percentage of people who did not participate in any leisure time physical activity in the last month*¹ ²

- One of the challenges for providers is to find ways of supporting senior citizens stay physically active, especially in the context of chronic conditions.
- Deerfield Valley Region does have Mt. Snow (ski resort), mountains and trails, and few church-sponsored exercise classes, but is overall limited in resources and lacks a fitness center.
- Use of walking poles have been shown to be effective in improving functional status in older populations³, as well as for cardiorespiratory measures⁴.

- **Problem 2:** Lack of readily available information and access to walking poles.
  - Older walking aids such as walking sticks, canes, and walkers are readily available at medical supply stores or pharmacies. However, walking poles are not readily available and require a little more searching.
It was estimated that $117 billion or 11.1% of health care expenditures in the US were associated with physical inactivity or inadequate level of physical activity⁵.

Regular physical activity is estimated to decrease direct medical costs from $1349 as a physically inactive person to $1019, saving $330 per person in 1987⁶. Considering inflation, estimated cost savings would be $694 now.

Bennington county and Windham county respectively have 7,736 and 8,426 adults 65 and older, which is a total of 16,162 people⁷.

If all of the physically inactive ones became physically active, then there is potential cost savings of 16,162 people x $694 = $11,216,428.00 in the two most Southern Vermont counties, not including the cost of intervention.

Due to limited exercise programs available in the Deerfield Valley region, residents would have to drive 20-40 minutes east to Brattleboro, VT or west to Bennington, VT to find fitness centers and structured exercise programs. Monthly membership can cost from $35 to $62⁸,⁹.

Cost of walking poles range from $21 to $197 or more on Amazon.com.
Community Perspective on issue and Support for project

- Practice Manager at Deerfield Valley Health Center
  - Outcome: The Deerfield Valley area lacks resources such as affordable gyms, public pools, community centers, or group activities. The local churches and Bennington’s Project Independence for seniors provide some programs, but not everybody knows about these programs. There are a few walking trails, but weather can be a barrier during the winter.

- DME Specialist at The Pharmacy at Bennington, VT
  - Outcome: This local medical supply store may have sold walking poles in the past, but does not sell them now. Interviewee speculated lack of demand as a possible reason for not having it at the store. The other staff members at the store were not familiar with the difference between walking poles and walking sticks. We discussed about procedures for having it available at the store, and it would depend on a doctor’s prescription and demand for the product.
Intervention and Methodology

- **Goal**
  - Make informational about walking poles readily available for patients and physicians.

- **Intervention**
  - Contact local medical supply stores and outdoor/sports stores to find out potential sellers
    - Check Wilmington, Mt. Snow, Bennington, and Brattleboro area
  - Informational pamphlet with the following information
    - Benefits of using walking poles
    - Proper usage
    - Where to purchase them
  - Provide informational pamphlet during office visit for patient who may benefit from walking poles
    - Senior citizens who are physically inactive
    - Patients who may benefit from walking aids
Results/Response

- Feedback from medical supply stores and outdoor/sports stores
  - Medical supply stores do not stock walking poles and lack familiarity with them.
  - Some of the local outdoor/sports stores stock “trekking poles.”
- Feedback from staff
  - Informational pamphlet may save time during patient encounters.
- Feedback from patient
  - Informational pamphlet was given during encounters.
  - A patient with a weak grip was hesitant about using walking poles.
  - If they were to purchase walking poles, some of the patient preferred going to the store than purchasing online.
  - A patient expressed experience using it for hiking before but never for flat ground. Few patients expressed hesitancy about using walking poles regularly.
  - A patient inquired about whether walking poles are covered by Medicaid, expressing concerns about cost.
Evaluation of Effectiveness and Limitations

Ways of evaluating effectiveness of the intervention

- Measuring how much time the pamphlet saves for the physician
- Tracking how many people who received recommendations for walking poles with or without the pamphlet acquire and use them
- Gathering feedback from patient about their perception and opinions of walking poles compared to other types of walking aids such as walking sticks or walkers.
- Tracking the change in percentage of the population that remain physically inactive

Limitations of the intervention

- Availability of walking poles
- Patient familiarity with online shopping
- Limited usage during the winter
- Lack of formal group training sessions
- Cost of purchasing walking poles
Recommendations for future interventions/projects

- Improving accessibility
  - Assess people’s willingness and barriers to acquiring walking poles.
  - Collaborating with local ski equipment stores and converting old ski poles to walking poles.
  - Partnering with suppliers to provide walking poles if the demand increases.

- Improving patient education
  - Developing audiovisual resources to be used in the waiting area of the clinic.
  - Walking pole training programs or informational sessions.
  - Recommending walking pole to different patient populations and special instructions associated with each condition.

- Implementing programs
  - Partnering with local organizations (e.g. churches) to form walking groups.

- Alternatives
  - Figuring out accessible physical activities for patient during the winter time.
References


Appendix: Informational Pamphlet

Walking Poles and Your Health

Potential Benefits of Using Walking Poles:
- Walking poles have been shown to be effective in improving functional status.
- Have demonstrated benefits in the following conditions:
  - Chronic back pain
  - Chronic obstructive pulmonary disease
  - Congestive heart failure
  - Intermittent claudication
  - Parkinson’s disease

How to Use Walking Poles:
- Set and secure the height of the walking poles such that the elbow is at a 90-degree angle.
- Maintain an erect posture, and avoid hunching over.

Where to Purchase Walking Poles:
- Other names for walking poles include “trekking poles,” “adjustable poles,” “snowshoe poles,” and “Nordic walking poles.”
- Prices can range from $21 to $197 or more for a pair of poles.

- Mt. Snow
  - Sports Odyssey: (802) 464-2002
- Brattleboro
  - Sam’s Outdoor Outfitters: (802) 254-2533
  - Burrows Specialized Sports: (802) 254-9430
- Bennington
  - Not available
- Online
  - Check Amazon.com or other online shopping websites.