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Addressing Exercise Education in Clinton County, NY

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ADDRESSING EXERCISE EDUCATION IN CLINTON COUNTY, NY

UVM CVPH FAMILY MEDICINE CENTER
FAMILY MEDICINE ROTATION
MARCH 19 – APRIL 26 2018
AMANDA KARDYS, MD CANDIDATE
MENTOR: DR. MAEGAN CABRERA, MD
PROBLEM IDENTIFICATION

- Forechi et. al states that hypertension, diabetes, and dyslipidemia are associated with high morbidity and mortality which can be prevented or improved via regular aerobic exercise
  - Adherence to exercise programs is influenced by several factors:


<table>
<thead>
<tr>
<th>Positively Associated</th>
<th>Negatively Associated</th>
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<tbody>
<tr>
<td>Age</td>
<td></td>
</tr>
<tr>
<td>Higher Income</td>
<td>Excess Body Weight</td>
</tr>
<tr>
<td>Higher Education</td>
<td>Negative Perceived Health</td>
</tr>
<tr>
<td></td>
<td>Regular Smoking</td>
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<td></td>
<td>Lack of Opportunity to Exercise in Neighborhood</td>
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</tbody>
</table>

- Everson et. al similarly found that obesity is inversely related to socioeconomic status and may be further related to: physical inactivity, diet, alcohol consumption, social support, psychosocial stress, and access to health care.
NEED IN COMMUNITY

- Jansons et. al identified enablers and barriers to ongoing exercise participation:\(^3\)

<table>
<thead>
<tr>
<th>Enablers</th>
<th>Barriers</th>
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</thead>
<tbody>
<tr>
<td>Workout “Contract” with Health Professional</td>
<td>Health Professionals Advising Against Exercise</td>
</tr>
<tr>
<td>Encouragement from Significant Other</td>
<td>Family Responsibilities</td>
</tr>
<tr>
<td>Self-Efficacy and Belief in Working Out</td>
<td>Fear of Injury/Illness</td>
</tr>
<tr>
<td></td>
<td>Fatigue/Depression</td>
</tr>
</tbody>
</table>

- In Clinton County, NY residents in 2016 voiced concerns about these problems:\(^4\)
  - The top 2 health issues individuals cited were overweight/obesity and chronic disease
  - 1 in 3 respondents felt physical inactivity was a community issue
  - Unemployment and low wages is a top social concern in relation to health care
In summation, obesity, chronic diseases such as diabetes, education and poverty are all integrally related globally, in the United States and New York State.

In 2008 medical costs due to obesity in the United States were estimated to be $147 billion\(^5\)
- In addition, in 2012 New York State annual cost for diabetes care is estimated at $21 billion\(^6\)

In Clinton County, combined age-adjusted hospitalization rates for cardiovascular disease, cerebrovascular disease, and diabetes for 2012-2014 were 162.7 per 100,000
- In comparison to the rest of New York State, this puts Clinton County in the 25-50\(^{th}\) quartile for CVD and diabetes hospitalization\(^7\)

Demographically, only 22% of individuals in Clinton County have a bachelor’s degree of higher, while 14.4% of residents live in poverty\(^8\)
COMMUNITY PERSPECTIVE - INTERVIEWS

**Anita Moore, PT, DPT, ATC**

“Patients in our community are afraid to exercise which leads to avoidance. It is often related to low socioeconomic status and not having education about their ability to exercise with a chronic disease.”

“When patients do begin exercising they have a lack understanding of how to exercise because they did not grow up being active. Patients need to be educated about frequency, intensity, and duration as well as their relationship to each other.”

**Ted Santaniello, City Recreation Center Director**

“The biggest perceived barriers we see in our population is time, work and children. Most of the people in our community work two to three jobs to provide for their family.”

“It is important when developing an exercise plan to have individuals undergo risk stratification by physical trainers or physicians based on their chronic diseases and limitations, therefore being given a work out plan that is attainable and beneficial to the individual.”
INTERVENTION AND METHODOLOGY

- Intervention: Provide a pamphlet addressing the major barriers and concerns individuals in the community have about exercise and barriers
  - Address myth that chronic disease means an individual is too sick to exercise
  - Validate concern about time constraints
  - Define terms such as frequency, intensity, and provide low-cost options for physical activity for low SES individuals
  - Provide national guidelines to community on exercise recommendations
  - Provide strategies to reduce injury to address fear of injury barrier
Handout was provided to providers at the CVPH Family Medicine Center and was positively received.

Handout will be distributed to the City of Plattsburgh Recreation Center and CVPH Physical Therapy division, to the community members interviewed. At the time of interview community members were enthusiastic about pamphlet and possible further cooperative interventions in the future.

Handout will be provided to patients who are interested in learning more about exercise and how it can help their overall well being.
EVALUATION OF EFFECTIVENESS AND LIMITATIONS

- Due to time constraint, effectiveness of handout with patients and community members was not elicited or monitored.

- Attempting to tackle low income, obesity, chronic disease, and exercise education in one pamphlet is a high task.
  - Yet, they are intertwined and their relationship to one another is what makes this problem so complex.

- The pamphlet does not give specific daily workout routines for individuals to follow, which may be easier than general recommendations.

- Community members may not be able to afford the City Recreation Center membership or classes, making it harder to work out in the winter in Clinton County, NY.

- Time will always be a constraint for individuals attempting to work out – trying to combine family responsibilities with exercise is a key strategy for individuals which may be difficult to implement.

- People who seek out a pamphlet may be more likely to follow advice from physicians and other specialists.
▪ Follow effectiveness of pamphlets with community members
  ▪ Perform focus groups of how individuals perceive the pamphlet
  ▪ Find disconnects between pamphlet and patient understanding
  ▪ Provide improved pamphlet

▪ Perform focus group with obese and/or chronically ill patients at UVM CVPH Family Medicine Center focused on exercise
  ▪ Provide a better understanding of education level in patients
  ▪ Ask ways we can better help them begin exercising
  ▪ Ask what resources they believe would be helpful

▪ Implement exercise program for volunteer focus-group
  ▪ Assess barriers to following workout program
  ▪ Assess enablers to following workout program
  ▪ Better understand community individuals ability to follow exercise program prescribed by physician office

▪ Provide seminars to patients on exercise
  ▪ Work cooperatively with PT, Recreation Center, and other specialties to provide educational seminar on exercise and obesity to community
  ▪ Allow for each specialty to focus on resources available to patient to help them succeed.
REFERENCES


