Diabetes Prevention Program

Improving Obesity Prevention Outcomes

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What is DPP
Why was it created?
Why did we participate in the QI grant?
Set an AIM

By the end of 32 weeks 100% of the DPP participants will increase activity by 30% or achieve 150 minutes of exercise per week.
Assemble a Team

- Staff RN with Community Focus
  - Debby

- Nursing Leadership Buy-In
  - Mary

- Improve Healthcare of Community Focus
  - Fran
Examine the Current Approach

Flow Chart

- Offer HgAlc to BS-100-126 (CCH)
  - Participate? (Clients)
    - No → End
    - Yes → HgAlc obtained (CCH)
  - HgAlc obtained (CCH)
    - Qualify/Non-Qualify (CCH)
      - No → End
      - Yes
        - Send letter to qualifiers with more details/survey (CCH)
          - Participate? (Clients)
            - No → Return survey (Clients)
            - Yes → Participate in class (Clients)
              - Educate (CCH)
                - Exercise (Clients)
                  - Exercise in class
                  - Learn new ways to exercise
                  - Log exercise

- Collect Data (CCH)
  - HgAlc obtained (CCH)
  - Analyze Data (CCH)
    - Report Results (CCH)
Reasons People Do Not Exercise

**Fish Bone Diagram**

- Lack of opportunities
  - Fitness Center is expensive to join.
  - No classes in town except those at Fitness Center.
  - Closest affordable exercise center is 30 minutes away.
- Lack of Motivation/Education
  - Hard to walk in the winter.
  - Lack of understanding of connection between exercise and elevated blood sugar.
  - Do not know how to start an exercise program.
  - Exercise can result in physical discomfort or pain.
  - “One elevated blood sugar test is not diabetes”
- Busy schedule
  - Only Class offered at 9am at Fitness Center.
- Lack of time
  - Exercise is not a priority for many people.
- Lack of resources
  - Not sure of classes/facilities in area
  - Personal financial limitation
  - Unsure of products to help with exercise

Increase physical activity by 30% and/or 150 minutes exercise/week
Identify Possible Solutions

- Letter
- Tracking form
- Exercise video
- Class walked together
Identify Possible Solutions continued

• Tools to exercise
• Former participants bring their message of encouragement
• Free membership to Fitness Center
Improvement Theory

- Individual accountability
- Group accountability
Test the Theory

• Implemented all possible solutions
## Results

### Baseline Information DPP 2006-2010

<table>
<thead>
<tr>
<th>Metrics</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td># Screening</td>
<td>432</td>
<td>256</td>
<td>232</td>
<td>400</td>
<td>292</td>
</tr>
<tr>
<td># Pre-Diabetic BS 100-126</td>
<td>104 (24%)</td>
<td>45 (18%)</td>
<td>48 (21%)</td>
<td>102 (25%)</td>
<td>51 (17%)</td>
</tr>
<tr>
<td># DPP Participants</td>
<td>67 (66%)</td>
<td>29 (64%)</td>
<td>20 (41%)</td>
<td>15 (14.7%)</td>
<td>8 (15%)</td>
</tr>
<tr>
<td>% Average weight loss Goal 7%</td>
<td>7.2%</td>
<td>7.8%</td>
<td>11.6%</td>
<td>9.1%</td>
<td>14.75%</td>
</tr>
<tr>
<td># Minutes/Week of Activity</td>
<td>206 minutes (33% ↑)</td>
<td>207 minutes (33% ↑)</td>
<td>170 minutes (32% ↑)</td>
<td>190 minutes (31% ↑)</td>
<td>182.5 Minutes (40% ↑)</td>
</tr>
<tr>
<td>Change in Blood Sugar</td>
<td>11.3% ↓</td>
<td>11.3% ↓</td>
<td>8.9% ↓</td>
<td>1.2% ↓</td>
<td>6% ↓</td>
</tr>
<tr>
<td># Inches Lost (waist)</td>
<td>2.4 in</td>
<td>2.58 in</td>
<td>2.45 in</td>
<td>2.6 in</td>
<td>2.625</td>
</tr>
<tr>
<td>HgA1c</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4% ↓</td>
</tr>
</tbody>
</table>
DPP Results

(Goal = 150 minutes per week)
Met the AIM after 16 weeks continue supporting for 16 weeks
Future

- Community
- Hospital Board
- Hospital Staff
- QI Committee
ACT
Standardize Improvement
- 16 weeks
- Use “new” letter to participants

PLAN
1. Assemble team
   CDE, RN, CEO & interested staff.
2. Examine Current Approach
   + DPP Materials online
   + RN to teach class
   + evidence based (DPP)
     - length of class
     - emphasis on foods vs. exercise
     - based on BS vs. HgA1C

STUDY
1. Collect results from participants.
2. Compare to last 4 classes
3. Analyze components of test theory

DO
Set AIM:
1. Offer HgA1C
2. Track daily exercise
3. Walk with class, walking DVD in class
4. Access to Fitness Center and exercise options
5. Arrange past students as motivational speakers
6. Enroll in Lieutenant Governor’s Program
CONTACT INFORMATION

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Diabetes Prevention Program (DPP)
www.bsc.gwu.edu/dpp/index.html

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