A Health and Wellness Health Education Program for Adults with Developmental Disabilities at Goodwill Columbus

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Health Conditions
- Persons with developmental disabilities experience disparities in health conditions such as: heart disease, thyroid disease, and diabetes compared to their peers without developmental disabilities.1,2

Dietary Behavior
- Humphries and colleagues (2009) suggest that adults with developmental disabilities who live in community settings are exposed to a wide variety of unhealthy food choices each day, which may lead to the higher rates of obesity in those persons who live in community settings.3
- One study looked at adults with developmental disabilities residing in a community setting and found that approximately 70% of the sample did not consume the recommended number of fruits/vegetables each week, only 48% chose what foods they ate in their home, and only 22% reported grocery shopping for themselves.4

Physical Activity Behavior
- Researchers have assessed leisure-time activities for adults with developmental disabilities and have generally concluded that the majority of leisure-time activities are spent in sedentary activities, such as watching the television.5
- Approximately 50% of adults with developmental disabilities do not meet national physical activity recommendations.6
- Adults with developmental disabilities have cited many barriers to physical activity that should be addressed when designing an intervention program to increase levels of physical activity including: cost, boredom, lack of transportation, not knowing how to exercise, and lack of access to health clubs.7

Purpose: The purpose of this project was to promote the health and wellness of adults with developmental disabilities by increasing healthy lifestyle choices pertaining to physical activity and nutrition through the implementation of a modified version of the published Health Matters© program.

Program
- Sixteen adults with developmental disabilities at Goodwill Columbus participated in an 8-week health education program led by Goodwill staff and graduate trainees.
- Eight adults with developmental disabilities served as controls.
- Participants attended eight, one-hour health education classes covering nutrition and physical activity topics.

Design
- Program outcomes were analyzed as a Pretest/posttest design with an intervention group and a control group (Goodwill attendees not participating in the educational curriculum).

Data Analysis
- Data was analyzed using SPSS software.
- T-tests and chi-square tests were used to analyze continuous and categorical variables.
- Photographs of lunches were used to analyze the content of participants’ lunches and were compared to the USDA’s MyPlate recommendations.

Results
- At baseline there were no significant differences between intervention and control groups on all variables.
- No significant changes on outcome measures were found when comparing intervention and control groups at posttest, although some measurable changes were found in the intervention group.
- Intervention group participants lost an average of 4.5 pounds, .36 BMI points, and 1 inch off their waists between pretest/posttest.
- None of the participants showed changes in foods consumed at lunch over the 8 weeks; 9 participants packed the same type of foods in their lunch each day.
- Only 2 participants consistently met national MyPlate recommendations.
- Participants consumed low amounts of fruit and vegetable servings and higher amounts of grains and protein servings.
- Physical activity could not be reliably tracked using participant self-report method.
- By the end of the program, 100% of intervention participants reported “loving or liking” being physically active and eating fruits and vegetables.

Conclusion
- Even though there were no statistically significant differences on key outcome measures as a result of the program, much was learned about implementing health and wellness programming for adults with developmental disabilities in a community setting.
- There are several reasons that could help to explain why program outcomes did not achieve statistical significance such as:
  - Individualized needs of participants (e.g. range of cognitive ability levels, participants’ group dynamics)
  - Staffing resources for program implementation
  - Intensity/duration of program
  - Variable engagement of participants’ caregivers to support program objectives

Limitations
- Small sample size
- Incomplete data from some participants

Future Work
Future health and wellness programming for this population should
- Consider offering the program to small groups of adults with similar cognitive and learning abilities
- Recognize the significant amount of staff resources needed to implement such a program
- Provide additional education to caregivers to support participants and increase their participation in program objectives

Program Outcomes

<table>
<thead>
<tr>
<th>Outcome Measure</th>
<th>Pretest Intervention Group</th>
<th>Posttest Intervention Group</th>
<th>Δ</th>
<th>Pretest Control Group</th>
<th>Posttest Control Group</th>
<th>Δ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight (lbs)</td>
<td>176.20 ± 29.98</td>
<td>173.65 ± 30.54</td>
<td>-4.54</td>
<td>179.77 ± 42.56</td>
<td>177.84 ± 42.96</td>
<td>-2.13</td>
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<tr>
<td>BMI</td>
<td>32.33 ± 6.22</td>
<td>31.96 ± 8.37</td>
<td>-3.66</td>
<td>31.49 ± 6.30</td>
<td>31.38 ± 7.21</td>
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<tr>
<td>Waist Circumference</td>
<td>43.53 ± 3.80</td>
<td>42.49 ± 6.51</td>
<td>-1.04</td>
<td>42.31 ± 6.56</td>
<td>41.10 ± 7.06</td>
<td>-1.20</td>
</tr>
<tr>
<td>Heart Rate (bpm)</td>
<td>84.61 ± 11.60</td>
<td>81.93 ± 10.85</td>
<td>-2.77</td>
<td>77.25 ± 15.15</td>
<td>78.25 ± 16.59</td>
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</tr>
<tr>
<td>Sit-to-stand (sec)</td>
<td>10.46 ± 2.25</td>
<td>10.27 ± 2.53</td>
<td>-0.18</td>
<td>8.36 ± 2.92</td>
<td>7.63 ± 2.70</td>
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</tr>
<tr>
<td>Single Leg Balance Left (sec)</td>
<td>2.71 ± 4.66</td>
<td>2.03 ± 3.23</td>
<td>-0.68</td>
<td>1.39 ± 1.53</td>
<td>1.67 ± 1.35</td>
<td>0.28</td>
</tr>
<tr>
<td>Single Leg Balance Right (sec)</td>
<td>1.46 ± 5.7</td>
<td>1.17 ± 5.48</td>
<td>-0.29</td>
<td>1.98 ± 2.11</td>
<td>1.53 ± 1.88</td>
<td>-0.43</td>
</tr>
</tbody>
</table>

*Significance testing for all of the above variables for within groups and between groups yielded p-values greater than 0.05.

References

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