Steps To A New You Increases Physical Activity

The Situation
In 2007, the American College of Sports Medicine and the American Heart Association updated physical activity guidelines to clarify the types and amounts of physical activity needed by healthy adults to improve and maintain health. They recommend that individuals do: (1) moderate cardiovascular activities 30 minutes a day, five days a week OR vigorous cardiovascular activities 20 minutes a day, 3 days a week and (2) strength training exercises twice a week. However, surveys conducted by the Centers for Disease Control and Prevention indicate that more than 60% of U.S. adults do not engage in the recommended amount of activity. Approximately 25% of U.S. adults are not active at all.

Our Response
In 2007, three Extension Educators (Laura Sant, Marnie Spencer, Grace Wittman) taught a nine-lesson curriculum, Steps To A New You, in Cassia, Franklin, Oneida, and Bingham counties. One of the program focuses is on physically active living.

Topics covered under physically active living were benefits of physical activity, barriers to being physically active and ways to overcome barriers, and making daily physical activity a part of a healthy lifestyle. Participants were also given a pedometer so they could count their steps each day. Some studies indicate that wearing a pedometer helps individuals to increase physical activity.

In order to measure changes in physical activity levels, participants completed a physical activity questionnaire at three points: Pre, Post (week 9), and Follow-Up (week 20). They were also asked to record their steps for 20 weeks.

Program Outcomes
Physical Activity Questionnaire Results: There were 53 participants who completed the pre, 35 who completed the post, and 33 who completed the follow-up questionnaire. Throughout the study, most participants (96%) participated in low-intensity physical activity, like walking. There was an increase in the number of participants (from 23 to 34 to 42%) who incorporated four or more low-intensity physical activity exercises into their daily routine.

On a weekly basis, there were more participants who took part in moderate-intensity (like fast walking), high-intensity (like running), and strength training (like lifting weights) exercises. (Results are reported in Table 1.) The results from the pre-survey showed that 96% of participants did low-intensity physical activity and of these individuals, 82% also did moderate-intensity, 33% high-intensity, and 33% strength training. The results from the post-survey showed that 100% of participants did low-intensity physical activity, and of these individuals, 97% also did moderate-intensity, 33% high-intensity, and 33% strength training. The results from the follow-up survey showed that 100% of participants did low-intensity physical activity, and of these individuals, 94% also did moderate-intensity, 53% high-intensity, and 62% strength training.

Average Daily Steps: Steps were recorded daily for 20 weeks and average daily steps/week was calculated. At week 1, baseline steps were 5,890 steps per day. From week 2 to week 10, steps ranged...
from 7,004 to 7,898. At weeks 11 and 12 average daily steps almost doubled, at 13,232 and 14,850 steps/day. From weeks 13 to 20, steps declined from 9,430 to 5,445 steps/day. The results are depicted in Figure 1.

Figure 1. Average daily steps per week

The increase in physical activity resulted in a decrease in television watching on the weekend and during the week. The greatest decrease in weekend television watching (from 26% to 17%) occurred in individuals who watched the most television, 4-5 hours of television/day. At the same time, the number of people who watched one hour or less of television on a weekday increased by 13%.

Table 1. Questionnaire Results

<table>
<thead>
<tr>
<th>PA Questions</th>
<th>Pre (n=53)</th>
<th>Post (n=35)</th>
<th>Follow-up (n=33)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Daily PA</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low intensity</td>
<td>96%</td>
<td>96%</td>
<td>96%</td>
</tr>
<tr>
<td>Low-intensity &gt; 4x/day</td>
<td>23%</td>
<td>34%</td>
<td>42%</td>
</tr>
<tr>
<td><strong>Weekly PA</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moderate</td>
<td>53%</td>
<td>80%</td>
<td>67%</td>
</tr>
<tr>
<td>High</td>
<td>13%</td>
<td>37%</td>
<td>27%</td>
</tr>
<tr>
<td>Strength training</td>
<td>21%</td>
<td>46%</td>
<td>39%</td>
</tr>
<tr>
<td><strong>TV viewing</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weekend TV: 4-5hrs/day</td>
<td>26%</td>
<td>17%</td>
<td>18%</td>
</tr>
<tr>
<td>Weekday TV: &lt;1 hr/day</td>
<td>36%</td>
<td>49%</td>
<td>48%</td>
</tr>
</tbody>
</table>

**Impacts:** At the end of the *Steps To A New You* program, more participants engaged in moderate- and high-intensity physical activity and strength training exercises. These percentages decreased at follow-up but they were still higher than the pre-survey results. Average daily steps per week increased substantially by post program, but participants were unable to sustain this to the follow-up measurement. Even though it is not reflected in the follow-up average daily steps per week, participants reported increasing physical activity. Regular physical activity has been shown to reduce the morbidity and mortality from many chronic diseases, including obesity, heart disease, high blood pressure, diabetes, colon cancer, and osteoporosis.

At the end of the *Steps To A New You* program, participants watched less television. Sedentary activities, especially watching television, are positively associated with decreased physical activity and increased risk of obesity and type 2 diabetes. Additionally, it is estimated that around 66% of Americans regularly eat while watching television. Those who eat while watching television tend to eat from 36-71% more calories than those not watching television. Therefore, the participants who watched less television are more likely to be physically active and less likely to develop obesity and type 2 diabetes.

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