



Newcastle Elementary Walks – Smart Stepping

The Newcastle Elementary School participants learned about physical movement, reasons to become more active, reasons to sit less, the long-term health benefits of walking, life-long activities, and how to use pedometers.

Situation

Americans would like to think of their young people as an active, energetic group with a whole world to conquer. In reality, the majority of today's youths are a generation of inactive, unfit, and increasingly overweight children. Childhood obesity has doubled in the last 30 years. One of the factors that has contributed to the obesity epidemic is physical inactivity. This is despite the fact that physical activity is one of the ten leading health indicators identified by Healthy People 2010, supporting its importance as a pressing public health issue. There was a 37 percent decline in the number of trips made by children by foot or by bicycle between 1977 and 1995.

A lack of physical activity and obesity have put children at risk for “adult” diseases such as Type 2 or “adult-onset” diabetes and the development of cardiovascular disease in childhood. In overweight children ages 5-15, a total of 61 percent has one or more cardiovascular disease risk factors and 27 percent have 2 or more.¹

The American Heart Association recommends that children and adolescents participate in at least 60 minutes of moderate to vigorous physical activity every day. It is difficult for Newcastle youths to get enough physical activity during the day because of limited recreation facilities in the community.

The “Newcastle Elementary Walks - Smart Stepping” program was developed to tackle this issue. The goals of the program included focusing on the physical activity of walking, promoting the benefits of walking, increasing the awareness of movement by the use of pedometers to keep track of the number of daily steps, and increasing the amount of physical activity each day for each of Newcastle Elementary School's youths.

A Wyoming Department of Health Cardiovascular Disease Prevention Program grant of \$500 was used to provide funding for the “Newcastle Elementary Walks - Smart Stepping” pedometer program. Robert Sweetgall's “Smart Stepping” curriculum materials were provided for the school. A partnership between the Weston County Cooperative Extension Service (CES), the Weston County Health Promotion Coalition, and Weston County School District #1's Newcastle Elementary School was formed. The Weston County CES worked with the Newcastle Elementary School P.E. instructor and classroom teachers. The Weston County Health Promotion Coalition assisted with the grant application, researched pedometer programs, distributed materials, and encouraged youths to walk.

Pedometers record and display movement as steps are taken. The pedometer program showed the school participants how to accumulate steps throughout the day to increase their total walking steps. Steps taken over a defined time period or steps per day are the most appropriate units of measure, so increased steps above the baseline were used to measure program success. Step counters were worn during physical education classes.

Baseline data was collected from 327 youths in grades kindergarten through fifth the week of April 7 – 14, 2003. A puddle-walk activity was used to determine step length. Using a measuring tape, the students measured the distance from the back of their right heel to the back of their left heel in inches.

Special Activities (April 14-May 16, 2003):

Six-Minute Walk: Students walked early in the program and again at the end of the program to compare the beginning data with the end data results.

Hit the Road, Jack: Youths estimated the number of steps it would take to walk various distances. They walked the actual distance and then recorded the number of steps.

School Clean-up Walk: Students counted steps walked picking up trash and debris. The activity promoted physical activity as well as a sense of community pride for their school.

Impacts

The Newcastle Elementary School participants gained awareness, knowledge, and skills by participating in the “Newcastle Elementary Walks - Smart Stepping” pedometer program. They learned about physical movement, reasons to become more active, reasons to sit less, the long-term health benefits of walking, life-long activities, and how to use pedometers. The program’s physical fitness benefits to the students included:

- Giving them more energy
- Making them feel good
- Helping them to relax
- Reducing school stress
- Helping them to sleep better
- Toning their muscles
- Helping to control their appetites
- Increasing the number of calories their bodies used.

The goal of increasing the amount of physical activity through walking for each Newcastle Elementary School’s youth participant was evaluated by the increase of steps above the baseline number. This information was used to measure program success. Step counters were worn during physical education class.

The youths were excited and eager to participate in the pedometer program. “These are cool! Oh! I was right on with my steps,” they commented. Awareness increased, and they realized they had not been walking as much as they should. As a result of the program, they walked and exercised more every day. The PE instructor, classroom teachers, school nurse, and principal observed that participants increased their movement before school, during PE and recess, and after school. The youths told the PE instructor that they had learned that movement was a key to good health.

Data results: Individual steps increased per day per class by an average of 250-500 steps.

A positive effect beyond the scope of the original proposal is that the “Newcastle Elementary Walks - Smart Stepping” pedometer program project will be incorporated into the PE/health classes to help meet state standards.

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