

Blue Hill Peninsula Childhood Obesity Prevention Project

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The Blue Hill Peninsula Childhood Obesity Prevention Project was established to impact the physical activity and nutrition curriculum in the Sedgwick and Brooksville Elementary Schools in an effort to strengthen students' awareness of healthy eating habits and therefore reduce the risk of childhood obesity. The project selected the Coordinated Approach to Child Health (CATCH) curriculum for implementation in grades three through five during the second semester of the 2002-2003 school year. Both physical education and classroom curricula were utilized. Physical activity and nutrition assessment surveys were conducted prior to and following the implementation of the CATCH curriculum. The pretests were conducted during the beginning of the second semester and the posttests were completed by June. The following is a summary of the level of curriculum implementation for the various schools and grades. Quantitative data summarizing the pre- and posttest surveys is attached.

CATCH Implementation

There were varying degrees of curriculum utilization. The participating teachers from both elementary schools were surveyed to determine the level of CATCH utilization and to measure the degree of fidelity to the CATCH objectives. Generally, use of the materials was rated high (75% or greater), medium (50-75%), or low (less than 50%). The results of the survey are reported below.

Brooksville Elementary School

Classroom Curriculum

The third, fourth, and fifth graders at Brooksville Elementary School were exposed to the CATCH classroom curriculum and participated in the physical activity/nutrition tests. The third and fourth graders are in a combined classroom setting and students from both grades received the third grade curriculum. They received one 40-minute session per week from January 3, 2002 through June 1, 2003. The teacher reports that overall adherence to the CATCH classroom curriculum was medium (50-75%). The storyline that utilizes cartoon characters to teach the students about nutrition and physical activity was used, as was the five-component curriculum design intended to structure each CATCH session in the classroom. Adherence to the *behavioral objectives*, *session summaries*, and *materials* was high. Adherence to the *session outlines* and the *CATCH activities* was medium. CATCH curriculum also includes scripted questions that were reportedly utilized at a medium level because the teacher felt they were "at a low level" for the students.

CATCH includes transparencies, posters, and student materials. Use of the transparencies and posters included in the CATCH curriculum was low for the Brooksville third and fourth grade. The teacher did utilize most of the student materials provided, but rated the use as “medium” because time constraints prohibited full inclusion of this component. Of the nine methodologies suggested by CATCH, three were *always* utilized, five were *often* utilized, and one was *seldom* incorporated into the lesson plans. The grade three curriculum has three grade-specific components that address food choice. The teacher reported a high level of fidelity to the utilization of the Hearty Heart and Friends Guide, but did not indicate use of the Grade three Student Workbook or the Hearty Heart and Friends videocassette. Due to time constraints and logistics, the third and fourth grade teacher did not use the Hearty Heart Home Team homework component of CATCH.

The Brooksville third and fourth grade teacher *strongly agreed* that the curriculum will help students achieve six out of the nine objectives related to identifying low/high fat foods, low/high sodium foods, healthy foods, and healthy fruits and vegetables. The teacher *agreed* that the curriculum would help students identify “active exercise,” unhealthy foods, and soda as a “harmful” food. As part of the CATCH curriculum, the students prepared, ate, and evaluated healthful snack foods four times during the six-week period. Food service staff was involved in this activity.

According to this teacher, the curriculum required some adjustment to meet the Maine Learning Results requirements. The teacher felt that CATCH did not address sugar “to an acceptable level” and he gave “mini-lessons” to fill in the gaps, felt the program was too “canned,” some of the characters were “not acceptable,” and felt there was some “discriminatory material.” The teacher indicated that the most successful part of the program was the food preparation and the least successful was the home/family component. As a whole, this teacher did not care for the curriculum and felt that it was time-consuming and inefficient.

The fifth grade teacher began CATCH on November 15, 2002 and finished the curriculum on March 7, 2003. Students received one session per week at 45 minutes per session. Adherence to the objectives of the CATCH curriculum was high. The cartoon characters were not utilized as this group had no prior exposure to CATCH or the continuing storyline and it seemed “young for grade five.”

In this class, fidelity to all five components of the CATCH curriculum design for each session was described as high, as was the use of the scripted questions. Use of the transparencies was high and the posters were used 50-75% of the time due to limited space. The nine educational strategies included in the lesson plans were used “often.” There are five grade-specific components to the curriculum. Breaking through Barriers and the Food Guide Pyramid were used at a high level of fidelity and the student workbook was used 50-75% of the time – Students also used the grade four workbook. Use of the Tille Telestar and F.A.C.T.S. curriculum components was low, because the characters were considered too young for the students and there was an existing tobacco/smoking program already in place.

The Hearty Heart Home Team homework component was utilized 50-75% of the time. Home involvement included an evaluation of snack foods. In addition, the students prepared snacks twice as part of the curriculum and planned a healthy snack menu for the entire student body for testing week. Food service staff was involved.

The Brooksville Elementary School fifth grade teacher *strongly agreed* that the curriculum will help students achieve six out of the nine objectives related to identifying low/high fat foods, low/high sodium foods, “active” exercise, and healthy fruits and vegetables. The teacher *agreed* that the curriculum would help students identify healthy and unhealthy foods, but *disagreed* that they could identify soda as a “harmful” food. A few modifications to the curriculum were made, including combining the grade four and five curricula, eliminating the “storylines,” and encouraging additional discussion around the idea of healthy foods – especially avoiding foods with excess sugar and highly processed foods. The teacher felt it was necessary to adjust the curriculum in order to meet the requirements of the Maine Learning Results and indicated that the most successful part of the curriculum was the information on fats, sodium, and use of the “GO, SLOW and WHOA” strategy. The least successful element was the lack of emphasis on unhealthy foods other than high fat/high sodium foods. Overall, this teacher felt the curriculum was too “canned” and “hokey.”

Physical Education Curriculum

The Brooksville Elementary School third, fourth, and fifth graders were exposed to the CATCH physical education curriculum for 22 weeks from December of 2002 through June of 2003. The sessions were held two times per week (CATCH suggests three sessions per week) at 45 minutes per session. The PE teacher felt that overall, adherence to the CATCH physical activity objectives was high for all three grades.

The phys-ed teacher utilized all four of the suggested lesson components during the twice-weekly sessions – Warm-ups, Go Fitness, Go Activities, and Cool Downs. CATCH suggests that these four components are utilized during every lesson. Reportedly, the phys-ed teacher adhered to this 50-75% of the time. At times, it was necessary to eliminate the Cool Downs because of time constraints. The teacher reports a high fidelity to the recommended timeframes for each component except for the Cool Downs (the suggested timeframe was adhered to less than 50% of the sessions).

The CATCH Fitness Trek Day was not included in the curriculum because of time and scheduling constraints and the three CATCH videos for the students were not available. Grade three participated in “fitness tag” which was not an activity included in the CATCH activity box but was used to enhance the “Go Activities.” Grade four students participated in an activity called “Madness,” also an addition to the “Go Activities” that was not a CATCH resource. Both grades also participated in a Life Fitness/Sport Curriculum activity related to hiking that was not part of CATCH PE.

Although the teacher considered some of the skill activities to be at a “lower level” than the students required, overall, the PE teacher felt that the CATCH curriculum was “very good.” This teacher believed it met the requirements of the Maine Learning Results, provided a good amount structure for the students, and moved at a fast pace that the students enjoyed.

Sedgwick Elementary School

Classroom Curriculum

Teachers for grades three and four were involved in the planning component of the Childhood Obesity Prevention Project. However, grade three participated in the physical activity/nutrition pretest only. The teacher had anticipated utilizing the CATCH classroom curriculum, but was awaiting further guidance from the project and did not use any component of the CATCH curriculum this year.

The fourth grade teacher did utilize the classroom curriculum and reported overall adherence to CATCH as high. The students participated in two to three sessions of CATCH per week at 35 to 50 minutes per session from January 1 through February 14 of 2003. The teacher reported *not* utilizing the cartoon character storyline because the characters were “too infantile for fourth graders” and the characters are typically introduced in the third grade and her students did not receive the third grade curriculum. The five-component curriculum design to structure CATCH in the classroom was used, however. Adherence to the *behavioral objectives* and the CATCH *activities* (two of the five components) was high. Adherence to the *session outlines*, *session summaries*, and *materials* was medium. The scripted questions were reportedly utilized at a medium level because the teacher felt they were “stilted” and preferred to use other language with the students.

In this case, the transparencies were rated medium, the posters were rated high and the student materials were utilized at a low level. Comments from the teacher indicated that some of the storylines included in these materials were “hokey” and others were “unnecessary to make a point.” The Hearty Heart Home Team homework was not utilized at all. These materials intended for the parents and students were described as “insulting.”

Of the nine methodologies suggested by CATCH two were *always* utilized, five were *often* utilized, and two were *seldom* incorporated into the lesson plans. Grade four has four grade-specific components that address food choice. “GO, SLOW and WHOA” activities were highly utilized by this fourth grade teacher. The student workbook was used at a medium rate and the Hearty Heart and Friends and Tillie Telestar components were minimally included in the lessons – reportedly because they were just “too hokey.” This teacher noted the students’ enjoyment of the daily lunch ratings, cautioning that for the ratings to succeed, there should be a positive relationship between the cook, the

teacher, and the students. The students prepared, ate, and evaluated healthful snack foods three times during the six-week period. Food service staff was not involved.

CATCH lists nine objectives related to identifying specific types of foods. The Sedgwick fourth grade teacher *strongly agreed* that the curriculum will help students achieve six out of the nine objectives related to identifying low/high fat foods, low/high sodium foods, “active exercise,” and healthy fruits and vegetables. The teacher *agreed* that the curriculum would help students identify soda as a “harmful” food, but *disagreed* that the objectives of identifying healthy and unhealthy foods would be achieved with this program. Specifically, this teacher found fault with the idea that CATCH does not consider “good fats” and does not address white flour or white sugar, food additives, or whole foods versus refined foods.

The Sedgwick fourth grade teacher did not have existing curriculum to address nutrition for the students, so CATCH was not used to supplement other classroom activities. Some minor additions to the curriculum were made to address the absence of information regarding refined vs. whole foods, additives, white sugar and flour, and “good fats.” For the most part, the teacher found that the curriculum that was used from CATCH was adequate to meet the requirements of the Maine Learning Results.

Physical Education Curriculum

The Sedgwick third, fourth, and fifth grade students were exposed to the CATCH PE curriculum for the same period of time as the Brooksville Elementary School students. From December through February they received 45 minutes per week of CATCH PE and for the remaining months they received the suggested 90 minutes of curriculum per week. Only the fourth graders participated in the classroom curriculum as well and completed the pre- and posttest surveys.

Summary

Utilization of the CATCH curriculum varied by school and by grade. The timeframes for implementation ranged from 1.5 to 6 months and the number of sessions per week varied, as did the length of the sessions. Overall, the teachers rated their fidelity to the primary objectives of the curriculum as either medium or high. The program includes numerous teaching materials that were used successfully in some cases and excluded in others. All of the teachers strongly agreed that the curriculum would help students identify lower/higher fat foods, lower/higher sodium foods, and fruits and vegetables as healthy foods. Agreement regarding the other CATCH objectives was less consistent.

The food preparation component of the classroom curriculum was a success with the students as was the “GO, SLOW and WHOA” approach to evaluating foods. The students and teachers enjoyed planning healthy snack menus and the daily lunch rating sheets were helpful and fun. The teachers also felt that the information regarding fats and

sodium was useful and effective. In general, the CATCH curriculum met the requirements of the Maine Learning Results and required minimal modifications.

There was, however, a general feeling from the participating teachers that the classroom curriculum was “canned” and “hokey.” Much of the information was redundant and below the skill level of the students. There was some discriminatory material in the program and some of the characters were seen as inappropriate. The home/family component was weak and, at times, insulting. The information regarding sugar, food additives, and whole foods versus processed foods was inadequate. The teachers also noted that there were many unnecessary papers and some of the materials required preparation that took away from classroom time.

Overall, the CATCH PE curriculum was well liked by the phys-ed teacher and the participating students. The structure of the program and the activity level were appropriate for all of the participating grades and the classes were described as enjoyable.