Health Habits, Healthy U: A Cancer Prevention Program

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Background

Healthy Habits, Healthy U (HHHU) is a collaboration among St. Luke’s Mountain States Tumor Institute (MSTI), Boise State University (BSU), and the Boise School District (BSD). HHHU started in April 2013 as a community outreach initiative designed to teach and reinforce positive health habits in children. HHHU focuses on the positive connection between increased physical activity and healthy food and beverage choices, and reduced cancer risks.

HHHU is a two-day educational program that is integrated into the Boise School District 8th grade health curriculum. Currently, HHHU is in ten Title I elementary schools. Since 2014, HHHU has reached over 3,000 fourth and eighth-grade students, along with parents and guardians.

This collaborative program leverages the existing partnership between Boise State University and St. Luke’s MSTI to add the important public school health component. Boise State students benefit by serve as teaching assistants and apply their skills and knowledge in a community setting. St. Luke’s MSTI expands their outreach and the public students have a unique learning experience.

Cancer Problem In Idaho

According to the Comprehensive Cancer Alliance for Idaho (CCAI, 2014) since 2008 cancer has been the leading cause of death in Idaho for both men and women. In 2012, the top two leading causes of cancer deaths in Idaho were lung/bronchus cancer and colorectal cancer (CCAI, 2014). In 2013, 21.8% of Idaho deaths were caused by cancer and it was the leading cause of death for people 45-74 (Idaho Department of Health and Welfare, 2015). The American Institute of Cancer Research (2015) states that lifestyle choices can reduce cancer risk and about 50% of the most common cancers could be prevented. Nationwide, approximately one-third of cancer deaths are a result of poor nutrition and sedentary behaviors (American Cancer Society, 2015). The Centers for Disease Control and Prevention (CDC, 2015) reported only 48.0% of adults meet the recommended 30 minutes of physical activity a day. Furthermore, less than 30.0% adolescents meet the required 60 minutes a day of physical activity. Physical activity, good nutrition and other good health habits can improve health. Active people, with good nutritional behaviors, who abstain from alcohol and other drugs live longer and are at a lower risk for disease, such as cancer (CDC, 2015).

Methods: Healthy Habits, Healthy U Lesson

HHHU is a two day primary prevention cancer education program taught in the 4th and 8th grades.

Day one is taught by the teacher and focuses on cancer basics and how healthy habits can reduce cancer risks. The 4th grades complete several nutrition and physical activity worksheets. The 8th grades read evidence-based articles and complete a write-up poster or similar.

Day two is taught by St. Luke’s MSTI and Boise State University undergraduate teaching assistants. They reinforce the previous lesson by using interactive discussions and hands on activities. St. Luke’s MSTI pathologists provides students with a unique opportunity by donating cancerous and noncancerous tissue samples for the students to examine in small groups. The samples give the students a better understanding of how poor health habits can increase cancer risks and impact the function of various organs.

After a recap of the lessons, the students answer some knowledge questions, identify three poor health habits and three corresponding replacement habits. The 8th graders select health behaviors they will work on improving over the next two weeks. St. Luke’s MSTI provides each 8th grader a water bottle to facilitate water consumption. Each 4th grader receives a small beach ball and game directions as a way to promote physical activity.

Reason for the HHHU Program

Healthy Habits, Healthy U’s was created to help students learn how positive health behaviors can reduce their risk for developing cancer. The habits students make now can be life long and life giving. The program provides factual information about the link between health habits and cancer risks. This is done through interesting, hands-on learning activities guided by teachers, university teaching assistants, and hospital staff.

Results

Since Spring 2014, over 3000 students in the 4th and 8th grade have participated in HHHU. Current evaluation results indicate HHHU is an effective program. Students knowledge about cancer and associated risks increased from pretest to posttest and they showed an increase in behavioral intent to change their risky health behaviors after the program.

In Spring 2016, six hundred ninety-one eighth-grade health students participated in the program. Students were able to master the key elements taught by the program. Scores on the post-test significantly increased from the pre-test on students’ knowledge about what cancer is, t(653) = 18.08, p < .001, that our bodies usually destroy mutated cells, t(680) = 9.97, p < .001, that physical activity decreases cancer risk, t(652) = 18.69, p < .001, that eating fast food/processed food increases cancer risk, t(661) = 15.50, p < .001, that consumption of two or more sodas in a week is linked to cancer, t(559) = 17.87, p < .001, that sedentary behaviors (e.g., watching TV/computer, sitting too much) increases cancer risk, t(666) = 22.50, p < .001, the definition of the word “mutation” as it applies to cancer, t(672) = 9.48, p < .001.

Students also decreased their belief that chemotherapy only targets cancer cells, t(676) = 9.18, p < .001, that eating fruits and vegetables does not increase cancer risk, t(670) = 8.93, p < .001. They also understood more about how drinking sugar-sweetened beverages increases cancer risk, t(558) = 5.56, p < .001, as well as health habits that can reduce cancer risks, t(554) = 3.70, p < .001. There was no effect of the program on students’ understanding of how exercise improves health, t(672) = 1.45. Finally, students were able to correctly identify which of their own health habits were unhealthy and how to create a healthy replacement habit (M = 88.46% correct, SD = 23.67%).

The 4th grade assessment is being revamped and we anticipate pilot data collection starting Spring 2018.

Conclusions

HHHU is an example of an effective partnership between a hospital system, university, and school district. The program helps the hospital reach some of their community health outreach goals, university students can apply their learning and public school students have a unique experience to see inside of the human body.

The school students learn more about the importance of adopting healthy behaviors. Students respond favorably to the HHHU program and are eager to share what they learn with their parents. The TAs serve as positive role models to the youth they are teaching. The TAs apply their course work learning in a practical setting and can use this experience on their resumes.

This is a positive partnership with the school teachers. Many of the teachers have family members with cancer and are invested in reducing cancer in Idaho. They love the program and have been active partners in helping us to improve the program delivery model.

Over the past three years we have shown that HHHU is an effective, low-investment intervention that may help reduce negative health habits and increase positive healthy habits in participating students. Reinforcing these positive health behaviors can help reduce their future risk of developing cancer.

References


