



HEALTH LITERACY THROUGH TECHNOLOGY



**Comprehensive Research
Executive Summary
July 2012**



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Program Overview

Arkansas Children's Hospital (ACH), in partnership with the Connect with Kids Education Network, (CWK), is piloting a multimedia program in 18 schools, focusing on health education, using the power of CWK online multimedia, reality- and research-based resources. The goal of this program evaluation is to determine how well students learn and how students' behavior and attitudes change and improve with a more intense, focused use of technology (online access and other media) for health education.

CWK videos are designed to harness the power of storytelling as real kids share real stories about issues affecting teen health including bullying prevention, depression and mental health, obesity, nutrition, and physical activity, and alcohol and other drug use prevention. Twenty participating middle and high schools throughout the state of Arkansas were provided online access to video and print resources on a password-protected website (www.connectwithkids.com/ACH), as well as hard-copy curricula binders with a DVD and print materials for the classroom.

Educators participated in a training webinar conducted by Connect with Kids in order to review the online curricula and execution timeframe. Each administered a pre-test to a selected class as well as a control group, and conducted 10 classroom learning modules over a 10-week period. Topics addressed include the following health issues: **making healthy choices, stress and anxiety, teen depression, over-the-counter and prescription drugs, underage drinking, cyberbullying, managing technology, physical fitness and nutrition**. Each 30- to 60-minute lesson included a 7- to 10-minute video segment and accompanying activity. At the conclusion of all lessons, the facilitator administered post-tests to the participating students. The post-test was also administered to the participants in the control group who did not receive the lessons.

Research Methodology

To assess impact of the program on the students involved, ACH and CWK worked with schools to measure program efficacy with independent pre- and post-testing research. Participating schools identified a facilitator, student participants and a student control group that took the pre- and post-tests without experiencing the 10-week multimedia program.

The survey evaluation is intended to demonstrate sustainable and significant changes in behavior and attitudes compared to the control group, and the impact of visual media and that difficult-to-measure emotional quotient in reaching youth and affecting their decision-making process. The overall initiative was directed at health literacy through technology to employ various media to reach teens with the topics at hand.

Key Findings: Behavioral and Attitudinal Change

Research findings indicate significant evidence of an increased awareness and positive change in attitude by teens regarding health-related issues. There are inklings of behavioral change as well, when students indicated an increased refusal to participate in bullying and a decrease in



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the amount of time spent on social networking during the 10-week course timeframe. Results, summarized below, are outlined in Appendix I: Survey Results by Category.

Key Findings: Behavioral and Attitudinal Change (con't)

Making Healthy Choices: Responses from students participating in the course indicated a significant increase in understanding that choices made during the teen years have a continued life-long effect on health. There was a 20 % overall gain in the experimental group versus a 4 % gain in the responses of the control group in the question regarding healthy choices. The control group indicated an awareness, but to a much lesser degree.

The Impact of Technology-Based, Multimedia Learning: Response data indicated a shift in preference for the availability of information through online media and videos, especially in combination with the use of classroom discussion groups. Quantitative and qualitative anecdotal responses indicated that the program had a positive impact on a change in attitude regarding importance of making healthy choices within the experimental group. In response to questions regarding a preference for obtaining information, students in both the control and experimental groups indicated a slight preference for video or online media over classroom discussion in the pre-survey (56% video, 44% classroom discussion). After the 10-week program was completed, students in the experimental group indicated a 61% preference for video learning versus 38% classroom; however, 65% of those indicating a preference for classroom discussion suggested that it should be in combination with video or online media presentation. Students in the control group did not indicate a significant shift in learning format preference.

Cyberbullying's Impact: Responses to student surveys indicated increased awareness of cyberbullying and the impact on themselves and others. There was a 10% increase in the number of students who realized that they had previously participated in bullying or making fun of others online. Behavioral change was indicated as students in the experimental group indicated an increased refusal to participate in bullying through the 10-week course, while the control group showed no change.

Managing Day to Day Stress: Participants indicated a statistically significant increase in confidence in their ability to positively deal with day-to-day stress. There was a 5 % increase in the number of students who indicated that they feel like they have the skills to handle day-to-day stress versus no change in the experimental group. Additionally, the experimental group demonstrated a strong decrease in the feeling that feeling stress and anxiety indicated that there was "something wrong". The control group did not demonstrate that change.

Awareness of Behavioral Influences: Students expressed a statistically significant increase in awareness that parents and friends influence decisions and choices that affect healthy decisions.

Managing Technology: Students in the experimental group indicated a decrease in the amount of time spent on social networks during the 10-week course while the control group indicated an increase. Neither group, however, indicated a significant change in the awareness of the impact of media (on or off line) on making healthy choices.



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Underage Drinking and Drug Use: The experimental group indicated a decreased difficulty to find alternatives to drugs and alcohol, and showed some decrease in incidents of getting drunk, while the control group showed no change.

Physical Fitness: Students in the experimental group indicated a significant increase in awareness of the long-term impact of exercise, while the control group indicated a decrease in awareness.

Qualitative Student Responses

The use of a mixed methods survey, including both qualitative and quantitative questions, allows students to open up and share details of stresses both in school and at home, including bullying by classmates and siblings; parental problems with alcohol, smoking, and eating disorders; and feelings of loneliness and disconnection. Responses in these areas within the control group did not indicate a significant change over the same 10-week period.

In the post-survey, those participants in the experimental group (52%) indicated an increase in the ability to positively manage stress, while the control group either did not respond or indicated no change.

- *“Yes. I know now that I am getting stressed by factors in my life. But I also know that it is being relieved in healthy ways.”*
- *“Yes, I talk to my parents about my stresses and it helps me a lot.”*
- *“I deal with a lot of stress because my parents are in a really bad divorce and fighting over us. Also the economy is super bad so I can't buy everything I want. Also, yesterday my mom moved away for 3 months to help her parents.”*
- *“Yes I used to think that stress was something wrong with me that I have to just deal with. Now I know differently.”*

In response to question regarding the importance of the program, students indicated:

- *“I kind of looked at my body wrong. It makes me feel guilty but it does change what I think. It also made me think I'm making the wrong choices.”*
- *“The most important thing that I learned was not to be pressured into doing something that will follow me for the rest of my life.”*
- *“The most important thing that I learned from this program was how to maintain a healthy lifestyle, how to manage stress, and how much drugs influence negative behavior.”*
- *“Even though you are growing more mature and wiser, your health is a big part of life that you should take seriously.”*
- *“I learned how dangerous porn is and how easy it is to get drawn into it.”*



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- *"I learned a lot through the online media and videos but I enjoyed the discussions with the group."*
- *"I have a greater understanding that things that I say and do might bully others when I don't mean to. I never thought about cyber bullying before."*
- *"I kind of looked at my body wrong before. This program helped me to change what I thought and to make better choices."*
- *"I don't know if there is a way to improve this program. I love it the way that it is right now. It has helped me a lot. Stuff I learned is helping me to deal with my parent's divorce. Thank you!"*
- *"I think differently now about the causes of stress in my life and make better choices to deal with problems."*

Negative comments received in response to question regarding the importance of the program included the following comments:

- *"Nothing really except for the usual "don't smoke" and "stay in school" kind of things."*
- *"I knew most of this already."*
- *"Not that much. Just basic stuff."*



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Educator Feedback

Facilitators from 13 of the participating schools responded to the request for feedback. For each of the ten class sessions, facilitators were asked for feedback on their preparation prior to each session and how effective they thought each session was in supporting healthy decision making. Overall, 69.2% of the facilitators rated the curriculum as Effective, while 30.8% indicated that it was Extremely Effective.

Educators commented on the ability of the program to elicit student response and participation and to learn from each other. Qualitative comments from facilitators include the following:

- *“The cyberbullying and managing technology was awesome. Students are really into the Internet so it was extremely informative for us. Also the OTC drugs [session] was great.”*
- *“My students began to understand that they had an opinion and that it was healthy for them to talk about each lesson without fear of being judged because of what they knew or had experienced. My students had lots of information to offer and most of them have actually done research or had been in other environments where these topics/lessons had been discussed. But the peer discussions were wonderful.”*
- *“I found the videos to be very effective in reaching my students. One way to improve the program is for each lesson to have a short assessment and key/rubric for the teacher.”*
- *“I watched students learn that others in their class have very similar values. Many students were not friends in this group prior to starting the lessons. They bonded a bit during lessons and learned from each other while forming positive opinions of each other and their choices.”*
- *“I think that my students finished the program with a greater understanding that all of the decisions that they make are important for a healthy lifestyle.”*
- *“One improvement would be to have more time to complete some activities, and to do lessons in the fall to avoid end-of-school-year interruptions.”*
- *“It’s a pilot program -- the videos are fresh and relevant and kept students’ attention. To that end, I would say to improve the program you may want to look at adding content to the video segments for each lesson.”*
- *“To add more lessons to what is already there and provide more interactive activities. The discussions were WONDERFUL!”*
- *“One way to improve this program is to complete some activities, and do lessons in the fall before end of school interruptions.”*



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Recommendations and Program Enhancements

Based upon student and facilitator input, upcoming program enhancements could include the following:

- Develop a more substantial training program than the one-hour video training, including guidebook and teaching aids.
- Update video content periodically to include the latest research and relevant student profiles.
- The creation of an accompanying workbook to facilitate assignment completion and ongoing discussion, including rubrics and alignment to state framework.