

I Sing the Body Electric: Description of an Innovative Health Promotion and Fine Arts Program for Adolescents

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Abstract

I Sing the Body Electric (BODY ELECTRIC) is a fine arts and health promotion program that supports communication of healthy lifestyle choices among youth. BODY ELECTRIC connects youth in 27 high schools with health and education communities in the largest rural geographic education region in a Midwestern state. The three-phase prevention plan designed to increase resiliency and reduce risk behaviors among adolescents begins with biennial regional administration of the Youth Risk Behavior Survey, with added questions designed to identifying the top health concerns of area youth. In the second phase, these health concerns are crafted into prevention messages by youth, using the arts as a medium of expression. University interns, local artists, and community health and prevention professionals mentor the students with their project ideas. On completion, students present their work at the biennial BODY ELECTRIC Arts and Health Festival. A comprehensive media plan forms the third phase of the program, featuring a prevention communication network of original broadcast programming that links student messages to a wider community. A region-wide tour of the arts/prevention project collection is delivered to schools and communities in the area providing another venue for the student-produced arts and health messages. Preliminary evaluation data were included to show the success of the program.

Key Words: *Adolescents, Fine Arts, Health, Health Promotion, Prevention*

Introduction

Those who study individuals aged 12-19 have consistently identified adolescence as a time of unique physical, cognitive, and psychosocial development, often characterized by a tendency to engage in risky behaviors that affect their current and future morbidity and mortality.^{1,2} National health authorities and organizations have therefore identified the need for effective prevention programs to reduce and alleviate the short and long-term consequences of this behavior.³ However, finding ways to encourage adolescents to take responsibility for positive health choices is a complicated challenge, especially when both the consequences of their risky behaviors and the benefits of their positive behavior choices may not occur for many years. Research supports the concept that reducing adolescent morbidity and mortality requires utilizing prevention strategies that are engaging and also provide the support of the many individuals and institutions that affect the lives of the adolescents.⁴

This article describes the *I Sing the Body Electric* (BODY ELECTRIC) adolescent health initiative. This program is an innovative, collaborative fine arts and health promotion program that connects youth with health and education communities in the largest rural geographic educational region in Illinois. The BODY ELECTRIC prevention philosophy is founded on the belief that there is great value in utilizing creative arts and peer influence to foster resiliency in youth. This strategy was selected because of the research reported in *Art Works! Prevention Programs for Youth and Communities*, an interagency publication of the Center for Substance Abuse Prevention (CSAP) and the National Endowment for the Arts (NEA).⁵ Founded on this and other pertinent research, the BODY ELECTRIC program design has successfully linked the arts with prevention.

I Sing the Body Electric Design

Successful and effective prevention programs require collaboration at the local, community, state and federal levels.⁶ To provide direction for the development of a community-based prevention program that actively engages youth, encourages family and community participation, and increases the attachment of youth to their academic environment, community leaders created a BODY ELECTRIC Partner Board. This board currently involves representatives from two hospitals, the regional office of education, a state university and community college, a PBS television affiliate, and the

BODY ELECTRIC Safe and Drug-Free Communities Coalition. The Safe and Drug-Free Communities Coalition membership includes youth, parents, business, media, youth-serving organizations, law enforcement, faith community, civic and volunteer groups, health care professionals, substance abuse agencies and education.

The Partner Board, composed of representatives from each of organizations mentioned above, is the decision-making body of BODY ELECTRIC. It governs the activities of the program and provides guidance and direction. The board has met on a monthly basis since October 1997.

A three-phase prevention plan was designed to increase resiliency and reduce risk behaviors among the youth in the region.

Phase 1

Effective planning models incorporate needs assessment activities to provide the foundation for establishing meaningful programs and interventions as well as create profiles of a target population.⁷ Conducting a local needs assessment not only helps define the parameters of proposed prevention programs, but also helps develop connections with target populations and stakeholders in the community.⁸ To identify the risk and protective factors on which to focus efforts for BODY ELECTRIC, local needs assessment data is collected biennially in a region-wide administration of an adapted version of the Centers for Disease Control (CDC) Youth Risk Behavior Surveillance System (YRBSS) survey.⁹ As shown in Table 1, since 1998, over half of the public high school population in the BODY ELECTRIC seven-county region has been surveyed in each of the biennial surveys. The survey report has filled a significant gap in available information on rural youth health status. The survey report and aggregate data are requested regularly by public health departments, educators, and prevention professionals in the region. In addition, local prevention professionals and school administrators have cited the report to support requests for funding, staffing, and planning. The survey activity has become more than a data-gathering process. It has become a respected tool for regional health and prevention planners. Complete survey reports from 1998, 2000, 2002, 2004, and 2006 are available from [BODY ELECTRIC](http://www.isbe.org/) <http://www.isbe.org/>.

Research on best practices in prevention supports the idea of identifying and addressing the problems specific to local community. Program effectiveness

can be enhanced by focusing on the unique characteristics of a population including age, gender, ethnicity, and specific risk behaviors.¹⁰⁻¹² As part of the data collection in Phase I, students are asked to identify what they believe to be the most serious health risks among their peers. Table 2 shows the rankings of the top health issues identified by the local youth. Although they have varied somewhat each year since 1998, alcohol-related problems, especially drinking and driving, have remained the number one concern. Other risk behaviors emerging as local concerns include sexual activity (AIDS and unplanned pregnancy), drug use (particularly the use of marijuana and cocaine), and body image. Asking the students to identify their top health concerns in Phase I of the BODY ELECTRIC program offers a powerful connection to the audience by providing a means and sense of “ownership” of the program.

According to the literature, effective prevention programs use survey results to change normative beliefs and perceptions about behaviors.^{13,14} BODY ELECTRIC compiles results of the biennial surveys and compares them to state, regional and national results. These results are distributed at regional press conferences raising community awareness about the behaviors of area adolescents. Social norms data are highlighted in a continuing press release campaign to keep the community updated on the positive health behaviors of their teens. The number of students not using substances or engaging in risky behaviors is emphasized in the press releases, in placards on the tour, and in local public service announcements about the program. Teens are also given special awards for projects created as part of the program that utilize strategies of social norms awareness.

Phase II

The health concerns identified by the survey in Phase I become the subjects of arts based health projects during Phase II – the Project Production Phase. This component forms the centerpiece of the program. In this phase, youth are challenged to explore the health topics and develop art projects that carry health messages aimed at their friends, family, and community. This phase is repeated biennially.

During Phase II, the BODY ELECTRIC program is introduced at participating high schools through kick-off assemblies or small group meetings. During the remainder of the school year, interns from a local university work with the youth to craft original, effective prevention messages for a chosen target audience. The interns who work with the program come from a variety of academic fields such as art, music, theatre, English, health education, family and

consumer sciences, education, and communication studies. Nation et al¹⁵ define effective prevention programs as ones that promote positive relationships with adults and peers. This activity provides opportunities for adolescents to develop the kind of relationships that can promote effective behavior change. Contact with the university students provides a positive impact on the teens’ sense of futurity as they interact with the young adults who are pursuing higher education. Positive youth development comes from opportunities of positive social interaction with peers and adults.¹⁶ Through these mentorship activities, BODY ELECTRIC provides an avenue to assess and strengthen supportive environments and caring relationships for the youth.

During Phase II, the teens are required to develop mini-grant proposals that include choosing a health topic and art form, identifying an audience and prevention strategy, planning a budget, requesting funding and establishing a realistic time line for completion of the project. The mini-grant proposals are reviewed by the BODY ELECTRIC director, and funds are awarded to the teens to purchase materials and equipment for the creation of projects. Interns and local health professionals continue to work with the high school students as they develop their projects. A curriculum developed by the BODY ELECTRIC director, trains university-age mentors to guide teens through the process that results in carefully researched and executed health communication projects.

As teens research and write mini grants they develop valuable problem-solving skills as well as a sense of power and worth as a member of the prevention team. Providing youth with opportunities to become involved with constructive, creative activities allows them to feel valued and able to contribute to others. These are important developmental assets that have been identified as necessary for young people to evolve into positive, responsible individuals.¹⁷

The final activity in the project creation process involves students presenting their projects at the biennial Arts & Health Festival in the spring. Each biennial year (1999, 2001, 2003, and 2005) teen artists, writers, actors and musicians have presented their projects to judges and a crowd of more than 800 people made up of family members and members of the community. Teens are presented awards in a variety of categories. Projects range from introspective, beautifully crafted poetry and prose to MTV-like original music videos, sculptures, paintings, and several auto-biographical videos of life as a meth user and life as a child of meth users.

Photos and descriptions of some selected projects are depicted in Table 3.

Analyses of prevention programs consistently reveal that interactive programs are substantially more effective than non-interactive programs.¹⁸⁻²⁰ Interactive programs involve peer-led or peer involvement with face-to-face interactions and communication. The literature concerning peer education as a successful strategy with adolescents is strong: relationships with others are a key correlate to levels of individual wellness. This, in part, stems from the issue of empowerment. "Empowering people to take health into their own hands is critical to health promotion."^{21(p363)} Empowerment leads to a decreased individual perception of helplessness.²² Peer education seems uniquely qualified to spread the message of competence through modeling of the desired behavior. Live performances are always a highlight of the annual BODY ELECTRIC Arts & Health Festival with selections written and performed by students for a multi-generational audience. The literature suggests that effective prevention programs are those that promote social competence through communication, self-efficacy and assertiveness.^{10, 23} The Arts & Health Festival provides a unique venue for youth to share their ideas with peers, parents, and the community and to develop confidence in their ability to express themselves.

Phase III

A comprehensive media plan forms the third phase of the program. The plan involves a region-wide tour of the projects and a media campaign featuring student-created messages serving as content for TV and radio PSAs, newspaper ads, a rotating community gallery, and feature articles.

The tour takes the projects to middle, junior high, and high schools as well as other community venues throughout the geographic region. Since the spring of 1999, more than 46,500 people have seen the tour at one of the biennial Arts & Health Festivals, in a school setting, at a national or state presentation, at exhibit installations in medical clinics, or by attending community events.

A collection of BODY ELECTRIC lesson plans has been developed from the student projects. Lesson plans are distributed to teachers during the tour. These teaching guides provide classroom tools to build resiliency in youth through the appreciation of arts-based prevention messages from student peers. Teachers are encouraged to use the material across academic fields, building prevention competencies throughout the curriculum. The focal

point of each lesson is a visual art piece, creative writing, or a video featuring a music composition or dramatic performance created by youth for youth. As student created health messages are investigated, learners are encouraged to analyze their own reactions and interpret personal messages through suggested spin-off activities. Dialogue is encouraged through discussion points, and each lesson includes a parent section to assist in extending the learning at home. All lesson plans are indexed and aligned with state learning standards.

Research shows that prevention messages repeated in multiple settings using two or more strategies are more effective and have a greater impact on behavior than prevention messages in single settings or single activity interventions.^{24,25} The inclusion of a media partner, the local PBS television station, has provided a wider audience for the youth-created messages. Public service announcements have been distributed throughout the central region of the state since 2000. In addition, a commitment has been made by the station to produce and air a half-hour program each year. The first one, broadcast in the summer of 2005, concentrated on students who created projects, their parents, and teachers. In the spring of 2006, an hour-long program focused on the number issue: underage alcohol use. A 30 minute show will air in the fall of 2006 and will highlight specific prevention projects and messages of the BODY ELECTRIC participants. Upcoming programs will highlight the unique way in which the arts foster family communication, and a program on specific health issues of teens.

Preliminary Evaluation Results

The effectiveness of BODY ELECTRIC can be demonstrated on a variety of levels. For the purposes of this article, effectiveness will be characterized by several issues. Is the population targeted for the program actually engaged in the program? What are the attitudes of participants toward BODY ELECTRIC? And what effect does program participation have on participant leadership behaviors?

BODY ELECTRIC has been well received by the communities, schools, and personnel involved. The projects evoke profound emotional responses and a great deal of discussion, both of which are conducive to laying the groundwork for behavioral change and building resiliency. The program has effectively reached the primary target population: rural high school youth, grades 9-12. In excess of 4,500 students participate in the survey each year. And over 1,100 students have been involved in the production

phases as shown in Table 4. More than 46,500 children, adolescents, and adults have seen the tour, and thousands more have encountered the youths' positive health messages conveyed by the PSA media campaign on broadcast and cable stations and a community gallery project.

One evaluation question involves participant attitudes toward BODY ELECTRIC. These attitudes are assessed via a participant satisfaction survey conducted during the annual BODY ELECTRIC Arts & Health Festival. Questions are forced choice (yes/no). Results are tabulated and reported as percentages. Table 5 provides survey results of the Student Satisfaction Survey for the years 2001, 2003, 2005. Results of the survey showed that most participants were proud of what they did (96%). They also reported learning about health related issues (76%). More than three fourths felt more confident in talking to people their age about healthy choices (85%), and a large majority agreed that they understood what it means to create a prevention message (86%).

To address the effect BODY ELECTRIC program involvement has had on participant leadership beliefs and attitudes, a pre-test/post-test control group design was utilized, and the resulting data was examined via analysis of covariance (ANCOVA). The study group (BODY ELECTRIC) was surveyed at the beginning of the project year and again at the end of the year. The sample was composed of 123 program participants or 45% of the population. The control group was surveyed twice within the same time frame as the study group. The control group was from a high school located just outside the project area but still in the same geographic region and with similar demographic characteristics to the study group schools.

Students participating in the study improved mentoring and peer leadership skills as shown in Table 6. Students were more likely to think of themselves as a teacher or helper of others (16% improvement). Students were also more likely to report themselves to be more open minded to other people's ideas (15.9% improvement), and more likely to value setting a good example for other young people (14% improvement). As a result of the program, students also reported they were more comfortable in speaking for their group and being honest without hurting others feelings. These skills are important for students who can serve as role models for healthy lifestyle choices.

While this article seeks to present the pedagogical foundation for the BODY ELECTRIC project, an

ongoing research agenda by an evaluation team is examining the psychological and behavioral impact of the program on the various populations involved. Reports-in-progress encompass rural teen risk behaviors, urban-rural differences, the efficacy of arts-based health education efforts, and numerous analyses of specific risk behaviors.

One of the important issues for youth is to be in a place where they are treated with respect for their ideas and abilities. BODY ELECTRIC provides an opportunity for adolescents to be viewed as actors or artists, musicians or writers, capable of creating health messages for each other. BODY ELECTRIC empowers youth to creatively and positively express their specific and unique concerns for each other and their community through researching and creating arts-based prevention projects.

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Table 1. Students completing the BODY ELECTRIC survey

Year	Student Population	Number Surveyed	Percent
1998	8,045	4431	55
2000	7794	4496	58
2002	7748	4326	56
2004	7502	4740	63
2006	7285	4817	66

Table 2. Top health concerns identified by BODY ELECTRIC youth, 1998 – 2004

Health Concern	Year			
	1998 Place %	2000 Place %	2002 Place %	2004 Place %
Alcohol use, drinking & driving	1 35.5	1 42.3	1 33.0	1 32.5
Body Image	5 8.6	3 9.4	2 17.4	2 16.5
Cocaine & other drugs	4 10.3	4 9.0	3 14.3*	3 15.4
Marijuana	3 11.3	5 6.6		
AIDS, STDS, sexuality	2 14.6	2 10.9	4 11.0	4 9.8
Suicide & depression	9 2.3	9 3.0	8 3.6	5 6.8
Seat belt, helmet use	7 6.1	6 6.0	5 5.8	6 6.0
Physical fitness, exercise, nutrition	6 6.2	8 5.0	7 4.5	7 4.0
Fighting & carrying weapons	8 3.1	7 5.2	9 3.4	8 3.4
Tobacco use*			6 4.9	9 3.2
Domestic abuse, dating abuse	10 1.9	10 2.7	10 2.2	10 2.4

**In 2002, all drugs were grouped to allow for inclusion of tobacco use as a topic*

Table 3: Photos and descriptions of selected BODY ELECTRIC projects

	<p>Cries of the Innocent A junked car door serves as the tablet for this poem that warns about the perils of drinking and driving. I want my poem to help prevent people from drinking and driving. With this poem I hope to reach out to people and help others. The first two lines are: Drinking and driving is known as a crime, Adults and children are killed a day at a time</p>	
	<p>Changing Roles “We wanted to get our message to female and male teens and preteens about abstaining from sex. This life size body sculpture portrays a young man’s mistake of sleeping with his girlfriend who later abandons him when HE becomes pregnant! We learned a lot about pregnancy rates and project planning. We really enjoyed the freedom to work with whatever materials we needed”.</p> <p>Fade (below, left) In this skit, actors depict talented people and then demonstrate how their skills and gifts deteriorate when they take drugs</p> <p>The Circles (below, center) “Our song tells the story of a girl who was on drugs at one time and how it ruined her life, but how one single peer can help by caring”.</p>	
		
<p>Death of a Star (right) This project concludes that one does not become famous or popular from drugs--they just die away from society. “I liked working on this project and hope I put the message across.”</p>		

Table 4. Number of students involved and number of project produced

Year	Students Involved	<i>Projects Created</i>
1999	219	88
2001	253	128
2003	274	127
2005	253	148

Table 5. Student satisfaction with body electric

	<i>Percent responding "Yes"</i>		
	2001	2003	2005
I am proud of what I accomplished	96	96	98
Interns were dependable	96	98	98
Interns were dependable	96	86	85
Cooperating teachers were helpful	97	91	100
I understood what it means to create a prevention message	98	95	73
I learned more than I originally knew about my topic	84	71	73
I learned a new skill/art technique	79	78	90
I would like to continue	90	66	78
I would like to help with the tour	74	49	90
My ideas on healthy living have changed for the better	91	82	93
I am confident I could talk to people my age about healthy choices	87	79	90
I have ideas on how adults could help youth with healthy choices	81	73	85

Table 6. Improved mentoring and peer leadership skill

	t	df	P
Stronger view of themselves as a teacher or helper of others	7.14	264	.000
More open-minded about others' ideas	2.24	266	.026
Placed greater value on setting good examples for other young people	2.02	266	.045
More comfortable speaking for their group	2.06	175	.041
More able to be honest without hurting others' feelings	2.60	156	.01