# Evaluation Report

# The Corner Theater Troupe/Peer Education Program

## *PROGRAM ABSTRACT*

The Corner Theater Troupe/Peer Education Program (TTPEP) is the educational arm of The Corner Health Center, a community agency that provides medical care, health education and support services to young people ages 12-21 and their children, regardless of ability to pay. The TTPEP provides prevention education in the schools and community on a variety of health topics, including alcohol and marijuana abuse. This program evaluation includes three outcome objectives. The first is to increase seventh grade students' general knowledge of alcohol and marijuana use. The other two outcomes are increasing participants' knowledge of social norms and to strengthen their resistance skills, two mediating factors that provide youth with the knowledge and skills they need to abstain from, delay, and reduce alcohol and marijuana use.

TTPEP provides intensive training in theater and health to high school aged teens, preparing them to be peer educators and to provide substance abuse prevention presentations to seventh grade students. The three-part intervention, the focus of this report, includes an interactive theater performance; a reality workshop in which recovering young adults share their personal stories; and a skill-building workshop in which students learn and practice resistance skills.

A team from Eastern Michigan University evaluated the intervention. The study utilized an experimental design consisting of pre-and post surveys. Sampling strategies included random assignment of seventh graders to experimental and control groups at participating middle schools. The results showed a very strong degree of positive change from pre- to post-test in the group that received the intervention and almost no changes for those in the control group. The evaluation clearly demonstrated that the project was successful in achieving its outcome objectives. Ninety-six percent (96%) of participating seventh grade students increased their knowledge including knowledge of social norms and 88% strengthened their resistance skills related to alcohol and marijuana abuse.

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# *PART 1. INTRODUCTION*

## The Corner Health Center

The Corner's mission is to help young people, ages 12 through 21, make healthy choices now and in the future by providing high quality primary health care, education, prevention, and support for adolescents and their children without regard to income level. The Corner Health Center is Michigan's first, largest, and most comprehensive teen health center. Goals include facilitating adolescents' access to health care, development of responsible health behaviors, reduction in risk-taking, education about the long-range implications of their health behavior, and encouragement to participate in and take responsibility for their own health care.

## The Corner Theater Troupe/ Peer Education Program (TTPEP)

In 1982, The Corner implemented the TTPEP. Since then the program has provided interactive theater performances for over 28,000 audience members. Between its inception and the present, the program expanded from performances on pregnancy prevention to performances addressing a range of topics including use of tobacco, alcohol and other drugs, sexual assault, sexually transmitted infection (STI) and Human Immunodeficiency Virus (HIV), and teen depression. In its first few years, the Troupe performed for high school students only. Since then audiences have included middle and elementary school children. In addition, performances have expanded in scope from reaching youth in the traditional school setting to high risk adolescents in detention centers, alternative education programs, treatment centers, and federally subsidized housing.

In 2002, informed by Social Influence and Social Learning theories, TTPEP increased its breadth and depth by first adding one, then later two, follow-up sessions to performances. The project as it is currently designed has reached over 5,000 youth over six years. The intervention includes an interactive theater performance, a short play followed by audience questions answered by actors both in and out of character; a reality workshop in which young adults in recovery share their personal stories; and a skill-building workshop that focuses on building resistance skills through role-playing and other educational activities.

## Community Profile

The TTPEP targets seventh grade students in the greater Ypsilanti area in eastern Washtenaw County in the state of Michigan.

In 2005, Washtenaw County's population was 319,791. The county was approximately 51% female and 49% male. Seventy-five percent of the county's population identified as White, 11% as Black or African American, 8% as Asian, 3% as Hispanic or Latino, 2.1% as two or more races, 0.5% as another race and less than 0.5% as American Indian, Native Alaskan, Native Hawaiian, Pacific Islander, or other. Fourteen percent of all children under the age of 18 had an income that fell below the poverty level. Twenty-three percent (23%) of the population was under 18 years of age with 13% between the ages of 10 and 19. In 2005, the school enrollment

in Washtenaw County for grades 1-8 was 30,838 and for grades 9-12 was 16,531 (U.S. Census Bureau, 2005 American Community Survey).

### Community Need

Alcohol is a major contributing factor in the three leading causes of death for 15-24 year olds including motor vehicle crashes, homicides and suicides. Use of alcohol and other drugs among youth is also linked to other adverse outcomes: increased number of sexual partners; poor academic performance; early unwanted pregnancy; school failure; delinquency; and transmission of STI, including HIV (Michigan Department of Education, 2005).

Among high school seniors in Washtenaw County, more than 49% have used alcohol and more than 29% have smoked marijuana. Among high school sophomores 33% have used alcohol and 22% have smoked marijuana. Among eighth grade students 17% have used alcohol and 6% have smoked marijuana. (Washtenaw County Health Improvement Plan [HIP] Progress Report, December 2001). Clearly there is a need for effective drug abuse prevention programs for area teens.

## *PART 2. THEORETICAL BACKGROUND*

The **Social Influence** and **Social Learning Theories** are the theoretical underpinnings of the TTPEP**.**

The basic premise of the **Social Influence Model** is that youth use substances because of social pressures from peers, family, and media, as well as internal pressures to use (e.g., the desire to be popular or "cool"). The preventive strategy developed from this model is to "inoculate" young people against the effects of these social pressures. One of its major components is modifying normative beliefs. The theory recognizes that children and adolescents will experience social pressure, including peer pressure, to engage in risky behaviors. (Evans et al., 1998 cited in Mangrulkar et al., 2001). Social influence programs anticipate these pressures and teach children about social norms, peer pressure, and resistance skills before and as they are starting to be exposed to risk-taking behavior. Meta-analysis of prevention programs revealed that social influence programs were more effective than other programs (Hansen, 1992, cited in Mangrulkar, et al., 2001).

The **Social Learning Theory** (Bandura, 1977, cited in McDonald, et al., 2003) also focuses on normative education and resistance skills. It states that youth's decisions are greatly influenced by peer group norms regarding drug use and perceived outcomes (Fors and Jarvis, 1995; Cripps,1997). The theory posits that social environment influences an individual's behavior. Bandura reminds us that social behaviors are learned by observing others who are in the same social group and that youth's decisions are greatly influenced by peer group norms (Fors and Jarvis, 1995; Cripps, 1997). The Social Learning Theory emphasizes the importance of modeling and is the first used to explain and support peer education. The theory suggests that in adolescence peer education is more important than adult-led education because of the increasing influence of peers and decreasing influence of adults. Adolescents deciding to use or abstain from drugs are more likely to look at the behavior of peers their own age or slightly older than to adults to influence drug-related activity (McDonald et. al, 2003).

The Social Influence and Social Leaning Theories informed the development of the TTPEP in several ways. The program targets younger adolescents, reaching them at a time when they are likely to begin experimenting and getting involved in risk-taking activities. Its major components, an interactive theater performance and two follow-up workshops, correct inflated beliefs about prevalence of substance abuse, provide opportunities to identify overt and covert pressures to use, and teach behavioral skills needed to resist peer pressure. Peer education is the core of the intervention and the foundation of the TTPEP.

## *PART 3. PROGRAM DELIVERY: PEER EDUCATION AND INTERACTIVE THEATER*

**Peer education** involves teens teaching teens their own age or a few years younger. Utilizing peer education can be a critical component of empowering individuals to take action and change their behavior (Freire, 1970). According to the Substance Abuse Services Administration (SAMHSA), peer involvement is critical to the success of education efforts. Peer educators understand youth culture, language, and behavior better than adults do. They have credibility with other young people, can be more effective than adults in changing attitudes, and motivating their peers to participate in activities, practice skills, and develop new behaviors.

Peers are an undeniable developmental influence during early adolescence (Hansen et al., 1988; Shiner, 1999). The peer group is defined as a "key reference point" and "source of independence, identity, and recognition" (Coleman & Hendry, 1990, as cited in Shiner, 1999, p. 557). Peer educators are likely to be cultural insiders both in terms of extrinsic (age, race, socio-economic status) and intrinsic (vocabulary, style of communication) factors.

Using peers as role models appear to have an impact on adolescents' perceptions of their own peer norms. Near-peers, those who are just a few years older than the targeted group, are even more persuasive because they have more credibility and authority in the eyes of younger adolescents. Many younger teens feel that older peers are better integrated into the wider youth culture than themselves and can therefore provide more accurate information about youth culture, including drugs. In addition, near-peers known by younger teens to have received appropriate training may have enhanced credibility (Cripps, 1997).

When peer educators implemented Botvin's Life Skills Training Program, students who participated in the peer-led groups reported less alcohol use than students in the teacher-led and control groups. Peer educator-led groups also reduced experimental marijuana use by 71% and regular marijuana use by 83% (Botvin, 2000).

Peer education is widely used in prevention programs and has been found to be useful in helping young people make healthy decisions (Bearman & Bruckner, 1999) and providing information effectively (Kelly et al., 1992; Zibalese-Crawford, 1997). Peer education is part of a culturally competent protocol in a wide variety of cultures and contexts (Ahmad, 2004; Guzman et al., 2003; Jemmott et al., 1999; Kim et al., 1997; Lieberman, Berlin, & Skov, 2005). "For the average adolescent, peer programs are dramatically more effective than all other programs, even at the lowest level of intensity" (OSAP, 1989).

**Interactive delivery** is an important factor in providing effective drug abuse prevention programs. Interactive programs produce stronger and longer-lasting positive effects on substance use (SAMHSA, 2002).

Based on a meta-analysis of 120 school drug prevention programs, the effectiveness of interactive over non-interactive programs was clinically and statistically significant for all adolescents (Tobler and Stratton, 1997). Interactive formats have been shown to have particularly strong effects when the curriculum is based on the Social Influence Model. (Ennet et al., 1994).

**Theater** is an effective, interactive format for engaging young people (Safer and Harding, 1993). It goes beyond providing factual information by capturing adolescents' feelings, interest, and trust. Theater more actively engages young people than other formats (Safer and Harding, 1993). Theater-based prevention programs build on "interactivity," empowering learners, particularly the young and vulnerable, to use tools provided by theater to open up a dialogue with others (Rohd, 1998). Theater may also be used as a tool to motivate and teach youth about multiple topics such as dating violence and eating disorders, as well as substance abuse (Rohd, 1998 and Stephens-Hernandez, 2007).

Live theater can be emotionally safe (Treder-Wolff, 1993) as well as engaging, entertaining, and compelling. Characters designed to be similar to youth in the audience mirror their experiences, break down barriers, and engender trust (Makulowich, 1997). It may open doors of communication not always available or easily accessible, particularly with regard to sensitive topics (Harding et al., 1996). Research conducted specifically on arts-based interventions tells us young actors, usually 2-3 years older than the audience, can be effective peer educators (Redman, 1987).

Studies have shown that programs using theater significantly impact the audience. (Gliksman et al., 1983; Safer and Harding, 1993; Slusky, 2004). One study found that young people exposed to a theater performance showed positive attitudinal growth related to substance abuse (Safer and Harding, 1993). According to post-performance surveys, theater programs' impact on audience members included empowering teens to "choose healthy behaviors and change the harmful subculture within their schools" (Slusky, 2004).

For theater education to be effective, it must be culturally and developmentally appropriate. Adolescents need to see themselves reflected on the stage. Using peers as actors provide a "checks and balances" system that ensures programs are culturally appropriate. When young people themselves play the characters or devise the action, they have the opportunity in which to create characters or situations that speak to them directly, as well as have control or mastery over the characters (Lieberman et al., 2005).

## *PART 4. PROGRAM DESCRIPTION*

TTPEP is a three-part intervention that combines peer education and interactive theater to increase abstinence, delay the onset of, and reduce substance abuse (specifically alcohol and marijuana) among seventh grade students. The intervention targets young people at a time when they are likely to begin experimenting, getting involved in risk-taking activities, and

experiencing feelings of invulnerability. The project focuses on achieving **three outcomes. The first is increasing knowledge. The others are increasing knowledge of social norms and strengthening resistance skills related to alcohol and marijuana abuse,** two important mediating factors in abstaining from, delaying and reducing the use of substances[1] among youth. They are major components of most evidence-based substance abuse prevention programs, including Life Skills Training, Adolescent Alcohol Prevention Trial and The All Stars Program.

Area teachers are under significant pressure to meet specified test standards and cover an ever-increasing academic curriculum. AOD is a topic that falls outside of the academic arena and as such is not a priority in schools. At the same time, educators recognize the importance of effective drug abuse prevention programs. Given this reality and to maximize effectiveness, TTPEP modified its prevention curriculum, limiting it to three sessions that focused on the most active ingredients of effective drug abuse prevention programs: normative education and resistance skill training.

The TTPEP consists of:

A. Training for Theater Troupe Members/Peer Educators[2]

B. Substance Abuse Intervention

1. Theater Performances
2. Reality Workshops
3. Skill-building Workshops

A. Training of Troupe Members/Peer Educators

Each year new peer educators are recruited for the theater troupe from three local high schools. Recruitment activities include providing performances, staffing lunchtime information tables in the school cafeteria, making PA announcements, and posting flyers. Following auditions a diverse group of 9-12$^{th}$ grade students is invited to join beginning troupe. The beginning and performing troupes each receive one two-hour training session per week over a ten month period. The comprehensive training, for 25 peer educators, prepares the troupe to provide 40-50 performances and assist with 60-80 follow-up workshops in schools and the community annually.

The theater instructor works in partnership with the health educator to train troupe members. Both educators work together to empower youth voices in the troupe. Troupe members learn about substance abuse and its relationship to STI including HIV, dating violence, depression and other relevant health related topics.

Health education is frequently combined with theater exercises and experiential activities.

Theater training for the beginning troupe includes acting, voice control, and movement on stage. For the performing troupe, the focus is on script writing, character development, and performing.

[1] In this report alcohol and other drugs (AOD,) "substance," and "drug" refer specifically to alcohol and marijuana.
[2] Troupe members and peer educators are used interchangeably throughout this report.

Rehearsals are also included in the training. Sessions are interactive and include discussion, role playing, and educational games and activities.

During the 2006 training period, troupe members worked with the theater instructor to develop key themes for a play on teen substance abuse. The theater instructor then wrote a rough draft of the substance abuse play, the conclusion of which is open ended. The play went through several drafts before the final script was written. The play incorporated input from the troupe members, young adults in recovery, and substance abuse professionals and artistic and prevention/ education consultants. Teens' perspectives were critical: they helped develop the play's dialogue with language that realistically represents the way young people communicate and situations in which they often find themselves.

B. Substance Abuse Intervention

1. Theater Performance

The play is performed for seventh grade students attending area middle schools. The performance includes: a) an interactive skit; b) a question and answer session, during which actors remain in character and engage the audience in dialogue about their characters' histories, plans, and related problems; and c) a peer education discussion between Troupe members, now out of character, and audience participants. The play's open-ended conclusion helps facilitate discussion with and provide opportunities for the audience to explore ideas in the play and encourages questions during its interactive components.

The theater performance raises the issue of normative beliefs around teen substance use, "Every body is doing it." The skit shows the enormous social pressures teens exert on each other, to go along, to gain acceptance, and to use AOD. It also models for the audience how young people can assertively respond to peer pressure. The discussion about prevalence of use among high school students, peer pressure and resistance skills continue in the interactive components of the performance: the in- and out- of character segments.

Following the performance theater troupe staff members distribute written materials designed to facilitate discussion between students and their families. The materials include a brochure entitled "Drugs: Talking with your Teen" (ETR Associates) and a homework assignment developed by Troupe staff called "Drug Quiz- Parents vs. Teens."

2. Reality Workshop

One week after the performance, the seventh grade student audience participates in a reality workshop, the first of two follow-up education sessions. During this workshop, recovering young people from a local substance abuse treatment center share their personal stories, and answer questions from the audience about the realism of the play and its relevance to their experience with alcohol and marijuana use.

Personal stories give the audience an opportunity to vicariously experience the lives of the recovering adolescents. They help students understand the consequences associated with use. The reality workshop helps to personalize risk, break through a teen's sense of invulnerability

("It can't happen to me."), and increase the authenticity, credibility, and significance of the intervention.

Typically the same issues about substance abuse are raised at each workshop and answered in similar ways. Examples include when and under what circumstances drug use started; the influence of peers; drug related norms; relationships with friends and family; how drug use progressed; social, legal, and health problems encountered; and the process of recovery.

3. Skill-Building Workshop

One week after the reality workshop, seventh grade students participate in the second follow-up education session, a skill-building workshop. The curriculum reinforces what students learned in the theater performance and the reality workshop including recognition of overt and covert pressure to use; correcting myths about social norms regarding the prevalence of substance use among peers; avoiding situations in which teens are likely to be pressured to use; building strong resistance skills; and community resources. The workshop utilizes interactive educational activities and role-playing exercises in which participants discuss, observe, model, and practice appropriate resistance skills.

During skill-building workshops students share ideas on how best to avoid situations where drugs are likely to be used. They brainstorm ways to counteract pressure to use. In addition, students role-play and try out different roles, situations, and practice refusal skills. Role playing provides a realistic simulation of how it feels to be pressured and the opportunity to practice newly acquired skills. Students also learn where and from whom to get help for themselves or their friends.

## *PART 5. PROGRAM BUDGET*

The annual budget for the TTPEP in 2007 was less than $100,000. It includes a full-time health educator and a half-time theater instructor; 120 hours of training for Troupe members over a ten-month period; two troupes, a beginning and a performing/advanced Troupe; and expenses for 40-50 performances and 60-80 reality and skill-building workshops.

| **Theatre Troupe Budget** | | | **Total Project** |
|---|---|---|---|
| **SALARIES** | **Hours** | **Weeks** | **Expenses** |
| Education Director | 12 | 52 | 19,437 |
| Health Educator | 40 | 46 | 27,664 |
| Theater Instructor | 20 | 46 | 15,778 |
| Business Manager | | | 3,317 |
| Administrative Assistant | | | 1,945 |
| **SUBTOTAL** | | | **68,141** |
| Payroll Taxes & MESC | | | 5,451 |
| Workers Comp. | | | 385 |
| Fringes | | | 5,883 |

| | |
|---|---|
| **SUBTOTAL** | **11,719** |
| **TRAVEL** | |
| Travel | 1,000 |
| Food | 1,000 |
| **SUBTOTAL** | **2,000** |
| **SUPPLIES and MATERIALS** | |
| Postage | 200 |
| Office Supplies & Education Materials | 1,035 |
| **SUBTOTAL** | **1,235** |
| **SPACE** | |
| Phone | 729 |
| Contents Insurance | 698 |
| Utilities | 1,335 |
| Maintenance/ Repair | 863 |
| Custodial | 970 |
| **SUBTOTAL** | **4,595** |
| **OTHER** | |
| Auditor | 1,228 |
| Professional Liability Insurance | 1,164 |
| Training. Stipends | 1,500 |
| Actors' Fees | 3,000 |
| Evaluator | 2,000 |
| Artistic Consultants | 200 |
| Dawn Farm Treatment Program | 300 |
| Other Professional Services | 1,418 |
| **SUBTOTAL** | **10,810** |
| TOTAL | **98,500** |

It is possible for programs, based on this one, to cost less than The Corner's TTPEP because the script is already available. In addition, the peer educators' training can be conducted differently, such as short intensive periods of training. There can be fewer performances and workshops. Other ways to reduce expenses may include working with a theater consultant instead of hiring an instructor; giving peer educators community service learning credit in lieu of training stipends and actors' fees; or offering the program as an after-school activity where overhead (space, auditor, insurance, utilities, custodial and maintenance/repair) is covered by in-kind contributions.

## *PART 6. PROGRAM EVALUATION*

### Design

The evaluation plan utilized an experimental design. There were pre- and post-test surveys for the experimental and control groups. Sampling strategies included random assignment of an experimental and control group at participating middle schools. Program staff initiated contact

with middle schools participating in the study. Both the experimental and control groups were seventh grade students in the same school but in different classes. The experimental group participated in the TTPEP's three-part intervention; the control group did not.

The pencil and paper surveys were brief and took about 10 minutes to complete. Participants answered each question after it was read aloud. The pre-test was administered to the experimental and control groups before the theater performance, and the post-test was administered to both groups approximately three weeks later, on the same day and time after the skill-building workshop.

The pre- and post-tests were matched by numbers written on the back of the surveys. An identifying sheet was temporarily paper-clipped to the numbered pre- and post-tests. Once students completed the pre-test they detached the test and handed it to staff who administered the survey. The blank post-test and identifying sheet were stored for later use. After the post-tests were completed and collected, the students discarded the identifying sheet. The classroom teacher did not handle students' completed pre- or post-surveys. It was not possible to trace any identifying information back to participants.

## Assurances to participants

All participants were informed verbally and in writing that the information they provided would remain anonymous and confidential and that their surveys would not be seen or answers shared with teachers, principals, parents, police officers, or with anyone else other than the university evaluation team. Participants were also informed that they could refuse to answer any question or withdraw from completing the survey at any time, without penalty.

## Participant Demographics

There were 625 respondents in the intervention group. Forty-three percent were male and 53% were female, 68% reported that they were white, 17% said they were African American, and 12% indicated that they were of another race. Of the 144 respondents in the control group, 43% were male and 55% were female, 67% indicated they were white, 18% said they were African American, and 11% reported that they were of another race. (Some respondents in both groups indicated more than one race category.) Tables 1 and 2 detail the breakdown of gender and race in the experimental and control groups.

### Table 1. Gender Distribution in Control and Intervention Groups (in percents)

| Gender | Control Group (n = 144) | Intervention Group (n = 625) |
|---|---|---|
| Male | 43% | 43% |
| Female | 55% | 53% |
| Gender Not Identified | 2% | 4% |
| Total | 100 | 100% |

## Table 2. Race Distribution in Control and Intervention Groups (in percents)

| Race | Control Group* (n = 144) | Intervention Group* (n =625) |
|---|---|---|
| African American | 18% | 17% |
| White | 67% | 68% |
| Other Race | 11% | 12% |
| Race Not Identified | 7% | 6% |

*Totals add up to more than 100% because some students selected more than one race category.

## Measures and Analysis Plan

The analysis was based on 625 matched pairs of respondents who attended all three components of the TTPEP's intervention: the performance, reality and skill building workshops. The analysis of the control group was based on 144 matched pairs of respondents. Table 3 shows a breakdown of respondents by school.

## Table 3. Number of Students in each Middle School included in Control and Intervention Groups

| School | Control Group | Intervention Group |
|---|---|---|
| School A | 45 | 95 |
| School B | 50 | 197 |
| School C | 0 | 31 |
| School D | 0 | 221 |
| School E | 20 | 59 |
| School F | 29 | 22 |
| Total | 144 | 625 |

The pre-survey's 12 questions had varying formats: a four point Likert scale, multiple choice, and fill-in-the-blank. The questions, all specifically related to alcohol and marijuana use, included ones on general knowledge, including consequences of use; knowledge of social norms; resistance skills; and community resources. One question used to assess knowledge of social norms was, "How many high school students do you think currently smoke weed?" Response options for this question included "all or almost all," "more than half," "about half," and "less than half." The question to assess knowledge of community resources was, "If you think your friend has alcohol or drug problems, what three different places can you tell him or her to go for help?" An example of a question to assess resistance skills was, "What would you do if a friend keeps pressuring you to drink alcohol or smoke weed even after you say no?" The respondents were asked to choose what they were most likely to do or say. Out of nine options provided, students were asked to choose three.

The pre- and post-test surveys were sent to an external evaluation team at Eastern Michigan University. Data were entered, verified, and analyzed. Quantitative data were analyzed using SPSS V15.0. The evaluators generated frequencies (such as counts and percentages) and descriptive statistics (such as minimum, maximum, standard deviation, and mean). In addition,

bivariate analyses (such as cross-tabulations, chi-square tests, and t-tests) were conducted as appropriate.

For each group, a paired samples t-test was conducted on each of the survey questions. This test assessed individual change by matching the pre- and post-test scores for each individual and comparing the averages from all participants to determine if there was a statistically significant change between the two time points on a given item.

For analysis, four outcome categories were constructed. (See Table 4 below for items included in each category.) All response choices were coded on a scale from one to four, with the most desirable response coded as 1 for each item. Response codes for items in each category were summed to determine the category score. To determine the impact of the program, the mean pre-test and post-test category scores in both the intervention and control groups were compared. Because the most desirable response in each category was the lowest possible score, successful outcomes are indicated by post-test mean scores that are significantly lower than pre-test mean scores. The paired-sample t-test results are presented in Table 4. The results indicate that the intervention group's post-test scores were significantly better than their pre-test scores for every category. Paired-sample t-test scores for the control group showed no significant improvement between the scores for any of the items.

## Table 4. Intervention Group Results: Change from Pre- to Post-test

| Category | Number of items included | TEST | Mean Score | S.D | N | t-score | d.f. | Sig (2-tailed) |
|---|---|---|---|---|---|---|---|---|
| Social Norms | 2[1] | Pre-test | 3.54 | 1.182 | 616 | 13.629 | 615 | .000 |
| | | Post-test | 2.83 | 0.908 | | | | |
| Communication Resistance Skills | 2[2] | Pre-test | 4.06 | 1.159 | 623 | 13.931 | 622 | .000 |
| | | Post-test | 3.33 | 1.203 | | | | |
| Knowledge of Substance Abuse | 5[3] | Pre-test | 10.26 | 2.066 | 607 | 13.952 | 606 | .000 |
| | | Post-test | 8.93 | 2.387 | | | | |
| Knowledge of Community Resources | 1[4] | Pre-test | 1.33 | 0.761 | 625 | 4.135 | 624 | .000 |
| | | Post-test | 1.2 | 0.650 | | | | |

[1] Response codes were summed from two items to determine this score: *How many high school students do you think currently drink beer, wine coolers or liquor?* (Desired response: about half); *How many high school students do you think currently smoke weed?* (Desired response: less than half).

[2] Response codes were summed from two items to determine this score: *I know what to say to a friend who has a problem with alcohol or weed.* (Desired response: strongly agree) *What would you do if a friend keeps pressuring you to drink or smoke even after you say no?* (Desired responses: change the subject, suggest something else to do, ignore the person) Item was scored by counting the number of desired responses selected.

[3] Response codes were summed from 5 items to determine this score: *Smoking one cigarette is worse for my lungs than smoking one joint.* (Desired response: strongly disagree); *Vomiting after drinking alcohol is a symptom of alcohol poisoning* (Desired response: strongly agree); *How often is alcohol or weed involved in unwanted or forced sex?* (Desired response: more than half); *If I start smoking weed, I could have trouble quitting.* (Desired response: strongly agree); *If I smoke weed, I may "blackout".* (Desired response: strongly agree).

[4] Response code from 1 item was used to determine this score: *If you think your friend has an alcohol or drug problem, what 3 different places can you tell him or her to go for help?* Item was scored by counting the number of appropriate responses (up to 3).

## Results

There was a statistically significant difference in the desired direction between the pre-and post-test for students in the experimental group for all of the questions, with one exception ("If I start smoking weed, I could have trouble quitting."). The significance level for each difference was **less than 0.001** indicating a very strong degree of change from pre- to post-test. There was no statistically significant improvement between pre- and post-test for the control group on any of the items. **These results strongly suggest that improvements between the pre- and post-tests of the intervention group are the result of the three-session TTPEP.**

## Validity

The Corner's theater troupe/ peer education staff, in consultation with a University of Michigan evaluator, developed the "Alcohol and Marijuana Pre- and Post-Survey." The survey was developed after reviewing several instruments including the survey Monitoring the Future.

Measures were developed in an iterative fashion. Pre-and post-test questionnaires for the same three part intervention was used over three years and the questions were very similarly worded to those used in the final evaluation submitted to NREPP for review. Evaluation results were very similar from year to year. In addition, questions were field-tested with a small group of teens. Staff worked with these youth to understand how questions were being interpreted. In some cases, questions were reworded so that they would better communicate their true intent.

## Data Quality

Evaluators designed databases using Snap, a data entry program, for each of the four instruments (the intervention group's pre-and post tests and the control group's pre- and post-tests). The evaluators trained experienced data-entry clerks on the instruments. Response codes and narrative for 1,992 surveys were entered but only 625 matched pairs in the experimental group and 144 matched pairs in the control group were used in analysis of the data.

The people entering the data were given question forms to complete for any survey in which there were one or more responses unclear to them. Problems included illegible writing, unclear item checking, selecting more than one item when only one was allowed, or any response about which the data entry workers were unsure how to record. The question forms included the respondent identification number, item number, the coder's question. Evaluators periodically read the forms and made the appropriate data entries. This process increased the consistency of data interpretation. Question forms were completed for less than 1% of the surveys and almost all of them were for questionable writing or added comments. The writing was deciphered for all of the questions and added comments were used when they helped to clarify an item response code. For example, some students did not check anything in the item asking for their ethnicity, but wrote in the margins something like, "white and black" or "Italian." These were coded appropriately for ethnicity. In only four of the 1,992 surveys (0.2%) students checked more than one response when one was allowed. Such responses were coded as missing data.

Evaluators performed 100% blind verification of every item for each instrument: Responses from each survey were entered twice by different data entry clerks. The clerk entering survey

responses for the second time did not know what data had been entered by the clerk who did the original data entry. Evaluators exported both sets of data into an SPSS file which was programmed to compare the first and second entry for each item of each survey and identify those with discrepancies. Surveys for each item with a discrepancy were manually reviewed by the evaluators. Appropriate corrections to the data file were made as needed. The verification assured that the data were entered with nearly 100% accuracy.

## Attrition and Missing Data

Using the corrected files containing response codes for each of the four instruments, the evaluators designed data files to be used for analysis. For the intervention group, there were 947 pre-tests (of those who attended the first of the 3-part intervention- the performance), for which there were 741 matching post-tests (of those who attended the first and third sessions- the performance and skill-building workshop). A total of 625 (66% of the pre-test group) had participated in all three sessions (performance, reality, and skill-building workshops). Evaluators used only the pre- and post-tests of the 625 matched surveys for analysis of the intervention group. The control group generated 160 pre-tests for which there were 144 (90%) matching post-tests. Within the matched intervention group data used in the analysis, there was very little missing data. Every item in both the pre- and post-tests for the intervention group had valid responses for over 99% of the surveys. In the control group surveys used in the analysis, one item (pre-test Question 1) had valid responses for about 92% of the surveys; seven items (four pre-test questions and three post-test questions) had valid responses for 97% to 99% of the surveys; and surveys had valid responses for over 99% of the remaining items. Pre- and post-surveys with missing data were eliminated from the analysis.

## Evaluation Fidelity

The pre- and post-test surveys were administered to both experimental and control groups. The experimental and control groups completed the pre- and post-surveys in different classrooms at the same time, day, and school. The only exceptions were the two schools in which there were no control groups. (See Table 1.) The pre-and post-test surveys were nearly identical for the experimental and control groups the only difference being word choice referring to the intervention itself. The experimental group post-surveys said “since I saw the theater troupe performance,” while the control group post- surveys said “since I took the first survey.” In addition, the post-test given to the experimental group, but not to the control groups, included one question about discussing substance abuse with family members following the theater troupe performance.

## Intervention Fidelity

The staff followed a set curriculum for training troupe members. Each theater production followed the same written script. In addition, while reality workshop presenters varied from one workshop to another, all were recovering young adults in the same treatment program. They all received the same short training by TTPEP staff prior to the workshop.

Questions at performances and reality workshops were mostly generated by the audience. If certain themes were not addressed, TTPEP staff facilitated discussion on those issues that were

important. This maintained consistency across performances and reality workshops and ensured that specific themes were covered across sections. In addition, the skill building workshop had a set curriculum and was implemented by the same program staff.

### Participant Comments

Seventh grade students' comments about the TTPEP included the following:

"It's like you guys are in our minds because you knew how to teach us so that we would actually listen, pay attention, and take some of it home and remember."

"If I know someone who has a problem with drinking and doing drugs, I know what to do thanks to The Corner team."

"I also know a boy who has drug problems. We don't talk much but he is still a friend. He comes to school late and is barely even there. I hope he realizes how much danger he could be in, but I am going to help him get help."

"You really helped me think about how drugs mess up people and their relationships. I have never thought about drugs until you came. You made me think long and hard. Thank you."

## *PART 7. READINESS FOR DISSEMINATION*

TTPEP is ready for dissemination. The current program has been implemented multiple times. Program staff have over 30 years combined experience with the TTPEP and are available to consult and train those interested in implementing a similar program in their communities.

Two manuals are available; one exclusively for implementing the 3-part intervention, the other includes training of the peer educators. Both include sections on the history of the sponsoring organization and TTPEP as well as project goals and outcome objectives. The former provides information on the three-part intervention including a detailed description of the theater performance; reality and skill-building workshops; curriculum, lesson plans and handouts for students; the substance abuse prevention script; sponsor survey; pre- and post-test surveys for seventh grade audience participants. The latter includes sections on recruitment of and auditions for peer educators; a detailed description of peer education training including curriculum, lesson plans, handouts for peer educators and pre-and post-tests for theater troupe members.

## *PART 8. LIMITATIONS*

This evaluation did not assess whether the positive program results achieved in 2007 are sustainable. It also did not measure if the program results including increased knowledge of social norms and increased resistance skills will actually result in youth delaying, reducing and abstaining from the use of alcohol and marijuana. To do this, the pre- and post-test surveys would need to be revised to include questions on the use of alcohol and marijuana. Pre- and post tests would need to be administered immediately prior to and after the intervention for experimental and control groups. In addition, the pre- and post-surveys would need to be administered for both the intervention and control groups 6, 12, 24, and 36 months later. Major

barriers in implementing a long term evaluation of this kind are the lack of resources and the difficulty of tracking students.

To increase the likelihood of students sustaining gains made in the first program year "booster" sessions, additional performances and workshops, could be provided in grades eight and nine. In the eighth grade, "boosters" would remain similar in format to the first year. For example, another script would be written and used for performances; in the reality workshop other recovering young people would share their personal stories; and scenarios for role plays would be different from those used in skill-building workshops with seventh graders. Ninth grade "boosters" could also maintain the same format, but the focus would change to substance abuse as it relates to HIV. Another play would be written. Young adults who are HIV positive would share their personal stories for "reality" workshops; and the skill-building workshop scenarios for role playing would focus on the impact of alcohol and other drugs on risk-taking, including unsafe sex.

## *PART 9. SUMMARY AND CONCLUSION*

TTPEP is a three-part substance abuse prevention program for seventh grade students. It includes an interactive theater production with questions from and discussion with the audience to actors both in and out of character; a reality workshop at which recovering adolescents share their personal stories; and a skill building workshop that gives participants the opportunity to learn more about peer pressure, social norms, and practice resistance skills.

The evaluation plan utilized an experimental design. Sampling strategies included random assignment of an experimental and control group. There was a very strong degree of positive change from pre- to post-test in the group that received the intervention and virtually no changes for those in the control group. The results clearly demonstrated that TTPEP achieved its outcome objectives.

The TTPEP draws on the Social Influence and Learning Theories and combines interactive delivery, theater performances, and peer education. TTPEP effectively increases knowledge of social norms and strengthens resistance skills, mediating factors that provide youth with the knowledge and skills they need to delay, reduce, and abstain from the use of alcohol and other drugs. TTPEP is an effective program that can stand on its own, or to maximize its impact, be part of a comprehensive community-wide approach to substance abuse prevention.

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