

State Farm Protecting You/Protecting Me 2007-2008 Pilot Study Year 3 Evaluation Report EXECUTIVE SUMMARY

Introduction

The purpose of this evaluation was to determine the effectiveness of the third year of the State Farm *Protecting You /Protecting Me (PY/PM)* alcohol use prevention and vehicle safety program. The results are useful as indicators on ways to improve results. While PY/PM has been found effective in reducing risk factors and improving protective factors for alcohol use and vehicle safety in prior evaluations when implemented by teachers, the unique aspect of this pilot study funded by State Farm was to determine if PY/PM is effective when implemented by high school Peer Helper students.

Last year's evaluation report of the first two years suggested very positive results for the 1665 elementary and 150 high school students who participated in PYMP. There was a 240% reduction in riding with a drinking driver in the Grade 4-5 students. High school Peer Helper students also decreased their past 30-day alcohol use by almost 25%. Overall effect sizes or amount of change ranged from small to medium size ($d = .20$ to $.56$). These effect sizes are very good when one considers that the average effect size of any youth-only school alcohol prevention approach is only $d = .10$ (Tobler & Stratton, 1997; Kumpfer, Alvarado, & Whiteside, 2004). Hence these PY/PM results are two and four times larger than most evidence-based alcohol prevention programs that focus on working with the youth-only in school-based alcohol prevention programs.

Purpose of This Year's Evaluation

This year's focus was changed to evaluate more thoroughly the outcomes for a larger sample of about 350 high school Peer Helpers, because the positive impact on the elementary students had been proven in Years 1 and 2. It was hypothesized that teaching the high school students should have an impact on the Peer Helpers' attitudes, intentions, and behaviors regarding alcohol use and vehicle safety. The goal of this evaluation was to answer two questions:

- 1) Was PY/PM effective in changing high school students' knowledge, attitudes, intentions, and behaviors regarding alcohol use and vehicle safety; and
- 2) How do results from the third year of PY/PM implementation compare to those from the first two years?

Numbers and Types of Student's Positively Impacted by PY/PM

Building on the success of the prior two years and increasing interest in PY/PM, the size of the program and evaluation was increased this year to eight states compared to four last year and a larger number of high school Peer Helper (teacher) students (over 350 compared to 75 last year). These high school students in the PY/PM model then teach the PY/PM prevention messages to over 3,600 elementary school students. Evaluation surveys were completed on 290 high school students from 11 high schools in Texas, Indiana, New Mexico, Missouri, Georgia and Louisiana. Five other high schools in two other states (Alabama and Maryland) participated in the study and submitted pre-surveys, but did not submit post-surveys. Compared to last year, the sample increased in percent of African American (11%), Asian (7%) and Hispanic (6%) students, but the sample of Native American students decreased to less than one percent, because of losing Washington and Oklahoma state sites.

Methods

Prior to implementing PY/PM, peer helper teachers attended a three-day training and in turn trained their students in PY/PM and the effects of alcohol on adolescent brain development. The peer helper students taught the 8-lesson PY/PM curriculum to elementary classes in nearby schools. The peer helper students completed a survey before being trained and again immediately after teaching the curriculum. In this third year, the evaluation of the elementary students was not conducted to reduce the burden of testing such a large number of elementary students because of the increase number of high school Peer Helpers. Therefore, the peer helper students did not administered a pretest and posttest to the elementary students like they did in the first two years. The elementary classroom and peer helper teachers were asked to complete a feedback form as they observed the peer helpers teaching a lesson in order to get information about the peer helpers, the elementary students, and the PY/PM curriculum.

Revision of the Outcome Measures

A major activity of the evaluation team in the third year was to create a new Peer Helper survey to measure more of the behavior and attitude/perception changes of the high school students because of their participation in PY/PM. We expected to get the most measureable changes in reducing drinking and driving in this older age group. The peer helper survey was revised to keep the existing 32 questions which measured the high school students' knowledge of the effects of alcohol on the developing brain, perceptions of their own teaching ability, intentions not to use alcohol in the future, perceptions of the risks associated with alcohol use and driving after drinking, self-efficacy with respect to their ability to refuse alcohol offered by friends and family in various situations, recent alcohol use, riding with a drinking driver, and driving after drinking alcohol. There were

93 new questions that measured the following: their own, their friends and their parents' attitudes about and usage of alcohol and drugs as well as questions about their age of first use, and their family and school environment. In addition, the test asks about their feelings about their school, teachers, and improvements in their social skills and peer refusal skills because of the class. The new instrument was constructed of standardized scales recommended the Center for Substance Abuse Prevention (CSAP), but we still had to test the psychometric properties of the instruments. The alpha reliabilities were found to be high suggesting the results are valid and reliable.

Results

We employed a quasi-experimental pre- and posttest experimental design for this outcome evaluation study that compared results by age and ethnicity. Overall, we obtained surveys from 290 high school students, which was a much larger number than last year (75 high school students). Also the attrition rate was lower than the 30% for the high school students last year. The percentage of ethnic high school students for which we had surveys suggested a higher percentage of ethnic Peer Helper students this year than last year (34% vs 13%) but more in line with that of the first year with 35%. We had a better spread of ethnicities since there were 11% African Americans, 7% Asians or Pacific Islanders, and 6% Hispanic students in this year's sample.

The results were impressive for this larger sample (n = 290) of high school Peer Helper students. They had statistically significant improvements in 18 of 23 of the outcomes measured or 78% of all outcomes. Additionally the amount of positive change was larger than that found last year for the Peer Helpers. Starting with the largest changes as measured by effect size (Cohen's d), the high school students improved their:

Alcohol and Driving Risks Decreased

- Knowledge of the effects of alcohol on the brain (very large change),
- Belief in the harmfulness of drinking alcohol (very large change)
- Perception of the harmfulness of under-aged drinking (large change)
- Intention not to use alcohol in the future (large change)
- Alcohol and vehicle behaviors (medium change)
- Not drinking alcohol in last 30 days (60% to 66%)
- Perception of the risk associated with underage drinking (large change)
- Perception of the risk associated with driving after drinking 1-2 drinks (small change)
- Perception of the risk associated with driving after drinking 3 or more drinks (small change but 100% of students rated this as very risky by the posttest)
- Decreased riding with a driver who had drunk alcohol (small change)
- Decrease in driving under the influence by 1% but not statistically significant

- Decreased risk for alcohol use (medium change)
- Decreased risk for substance abuse including for tobacco, marijuana and other drugs (small to medium change).
- Decreased their past 30-day alcohol use by 10%.
- Binge drinking decreased significantly (small change)
- Driving after drinking decreases but not significantly because it was so low at the beginning of the program.

Alcohol and Drug Protective Factors Increased (Resilience and Social Skills)

High school peer helper students also improved their resilience factors for protection from later alcohol use in the following areas:

- Increased Confidence in teaching skills (very large increase),
- Increased alcohol resistance skills (large increase)
- Increased social skills (large increase)
- Increased peer disapproval of use of alcohol and drugs (medium increase)
- Increased school attachment (small increase)
- Increased resilience and life goals (small increase)
- Parent disapproval of teen's alcohol use (large increase)

There were risk factors that did improve but not significantly including the following:

- Family environment
- Parent substance use
- Teen substance use

Process Evaluation Results from Site Visits

Site visits to determine fidelity and quality of delivery of PY/PM suggested that the Peer Helper students were serious in their delivery, well organized and prepared. In addition they interacted well with elementary students who really seemed to enjoy having the older students as role models. Teachers also rated high school students highly on:

- Refraining from inserting personal stories about alcohol and other drug use
- Starting and ending on time
- Giving positive reinforcement to students
- Answering students' questions adequately
- Engaging and involving students.

Some suggestions for areas of growth for Peer Helpers included:

- Improving ability to redirect students when necessary
- Improving time and group management,
- Paraphrasing instead of reading material

Recommendations

Recommendations for the Year 4 evaluation methods are as follows:

1. **Controls for Testing Effects.** Have half the schools conduct a posttest only to determine the impact of the pretest sensitization on the comparison schools and the treatment schools producing a threat to validity called a testing effect. In this next year, we are going to have half the schools do a retrospective posttest only to control for this testing effect.
2. **Focus on Increasing the Sample Size of the Peer Helper Sample.** In order to determine the impact of PY/PM on the Peer Helpers, we need to increase the sample size to increase the likelihood of having statistically significant positive results.
3. **Continue to Measure the Larger Number of Risk and Protective Factors Measured in Peer Helpers.** The research team has worked with the program developer, Kappie Bliss, to select more risk and protective factors that are important in predicting later alcohol and drunken driving risks in high school students. The pre- and posttest has been redesigned to include these new scales.
4. **Continue to Focus on the Peer Helpers Data Collection.** The sample size of elementary students is now over 2,000 so to increase data collection on Peer Helpers, we recommend continuing the focus on the high school sample.
5. **Consider No-Treatment Control Schools.** There was only one negative results and that was an increase in the perceived risk of the school and community environment. Without no-treatment control schools it is hard to judge the true magnitude of these positive results

Conclusions

In this evaluation of the first three years of State Farm PY/PM implementation, we found that the peer helper students who taught PY/PM made positive gains. The results were impressive for this larger sample (n = 290) of high school Peer Helper students. They had statistically significant improvements in 18 of the 23 outcomes measured or 78% of all outcomes measured in this evaluation. The positive improvements were in risk and protective factors as well as actual decreases in percent drinking and riding with a drinking driver. We have made recommendations for improving the implementation and evaluation process in the future by continuing the focus on the Peer Helpers outcomes including the new predictive risk and protective factors reported in this evaluation.