



Development of Resource Kit for Adolescent Cessation of Tobacco

Grant Number: R44CA91630-03

Abbreviated Abstract

Five hundred thirty-four counties in 18 states are home to 29,497,852 persons and grow tobacco. Data indicate that youth in these areas use tobacco earlier and use it more frequently than other youth. Tobacco communities have a unique perspective based on the cultural, social, and economic importance of tobacco, which requires a sensitive approach to adolescent cessation efforts. This project will develop a culturally congruent Resource Kit for Adolescent Tobacco Cessation in Tobacco-Growing Communities. Based upon formative research conducted in tobacco-producing communities, Toborg Associates will develop the cessation curriculum. In a randomized controlled pre-test/post-test field test, Pacific Institute for Research and Evaluation (PIRE) will assess the efficacy of the curriculum. PIRE will randomize 20 high schools in tobacco-growing communities into experimental and control conditions. Toborg Associates will implement the full curriculum in the experimental schools and an intervention that controls for attention and content in the control schools. PIRE will conduct a pre-test, a post-test at the end of the 6-week cessation program, and a follow-up survey 3 months after post-test.

Primary Investigator

Mary A. Toborg, M.P.A., B.A., Toborg Associates, Inc., 1129 Twentieth Street, NW, Suite 108, Washington, DC 20036

Phone: 202-776-0112

Fax: 202-776-0114

Email: mtoborg@toborg.net

Web site: www.toborg.net

Research Team & Affiliations

Mary A. Toborg, Toborg Associates, Inc.;

Michael G. Meyer, Toborg Associates, Inc.;

Sharon A. Denham, Toborg Associates, Inc.;

Alan Stein-Seroussi, PIRE; Laurie Stockton, PIRE

Total Budget

\$1,107,962

Research Objectives

AIMS

1. Based upon formative research conducted in tobacco-growing communities, develop a culturally congruent Resource Kit for Adolescent Tobacco Cessation in Tobacco-Growing Communities.
2. In a randomized controlled pre-test/post-test field test, assess the efficacy of the adolescent tobacco cessation curriculum.



Theory/Hypothesis

The program reflects a social influences strategy that combats perceptions prevalent among adolescents in tobacco-producing communities. The program also will incorporate insights from Bandura's (1997) social cognitive theory and Prochaska's (1992) stages of change. The null hypothesis of the project is that there will be no difference in treatment outcomes between adolescents who use tobacco and live in tobacco-growing communities and receive a video intervention and adolescents who use tobacco and live in tobacco-growing communities and receive ACTION (Adolescent Cessation of Tobacco: Independent of Nicotine).

Experimental Design

In a controlled experiment, schools were randomly assigned to receive either the ACTION curriculum or the comparison condition of the same length but based on existing cessation videos and print materials. We stratified the randomization by state in order to ensure a balance between state and condition. Students completed the baseline (pre-test) survey up to 7 days prior to implementation of the experimental and comparison conditions, the second (post-test) survey 6 weeks later (no more than 3 days after the experimental and comparison interventions concluded), and then a 3-month follow-up survey.

Final Sample Size & Study Demographics

Participants were high school students aged 14 to 18 years who currently used tobacco products, recruited from 14 schools in Kentucky, North Carolina, and Ohio. A total of 268 students participated.

Data Collection Methods

Pre-test/post-test survey, saliva tests

Outcome Measures

The primary outcome measures at the 3-month post-program follow-up point are (1) self-reported abstinence from tobacco use at the end of the intervention and (2) biochemically confirmed abstinence from tobacco use (up to 72 hours). Secondary outcome measures include (1) self-reported past-30-day frequency of tobacco use (number of days used), (2) self-reported past-30-day amount of tobacco used, (3) intentional quit attempts during the past 3 months, (4) self-reported continuous abstinence from tobacco use during the past 3 months, and (5) number of days abstinent from tobacco use during the past 3 months.

Evaluation Methods

Change scores were compared for students in the experimental and control groups. Abstinence from tobacco was also compared.

Research Results

- ACTION participants were more likely than comparison participants to achieve 3-day abstinence with verification, using an intent-to-treat analysis. That is, 7.3% of ACTION students and 2.9% of comparison students abstained from tobacco use for at least 3 days (with biochemical verification) at the 90-day follow-up.
- ACTION participants were more likely than comparison participants to report achieving 7-day abstinence with 3-day verification. That is, 7.3% of ACTION students and 2.2% of comparison students reported abstaining from tobacco use for at least 7 days (with 3-day biochemical verification) at the 90-day follow-up.
- Differences in abstinence rates between ACTION and comparison students were more pronounced at the 90-day follow-up than at the immediate post-test, which is contrary to the



conventional wisdom that differences between treatment and control groups decay over time. Moreover, the number of ACTION students who achieved 3-day abstinence with verification actually increased from post-test to follow-up; this suggests that ACTION provided students with skills they carried with them after the intervention ended, unlike the comparison condition.

- There were no statistically significant differences between ACTION and comparison students on secondary outcomes (e.g., amount and frequency of tobacco use) or on mediating factors (e.g., stages of change and nicotine dependence). For all the secondary outcomes and mediators, however, ACTION participants reported averages in the more favorable direction than did comparison participants.
- There were consistent effects for time, with students in the ACTION and comparison condition reporting reduced tobacco use behaviors over time.
- There were consistent effects for sex, with females reporting more reduced tobacco use behaviors than males over time.
- ACTION students rated the program more favorably than did comparison participants, although both groups' ratings were high.

Barriers & Solutions

The project initially had intended to emphasize recruitment of schools solely in North Carolina. Since the writing of the grant, North Carolina implemented a policy that tobacco cessation programs introduced into its schools must be evidence based. Since our study had not completed a field test, the team reverted to a back-up plan to recruit schools in Kentucky and Ohio.

Product(s) Developed from This Research

ACTION (Adolescent Cessation of Tobacco: Independent of Nicotine)