Name of Program/Strategy: Project Towards No Drug Abuse

Report Contents

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1. Overview and description

Project Towards No Tobacco Use (Project TNT) is a classroom-based curriculum that aims to prevent and reduce tobacco use, primarily among 6th- to 8th-grade students. The intervention was developed for a universal audience and has served students with a wide variety of risk factors. Designed to counteract multiple causes of tobacco use simultaneously, Project TNT is based on the theory that youth will be better able to resist tobacco use if they are aware of misleading information that facilitates tobacco use (e.g., pro-tobacco advertising, inflated estimates of the prevalence of tobacco use), have skills that counteract the social pressures to obtain approval by using tobacco, and appreciate the physical consequences of tobacco use.

Project TNT comprises 10 core lessons and 2 booster lessons, all 40-50 minutes in duration. The core lessons are designed to be taught over a 2-week period but may be spread out over as long as 4 weeks. Booster lessons, which are taught 1 year afterward, are intended to be delivered over 2 consecutive days but may be taught 1 week apart. The curriculum uses a wide variety of activities to encourage student involvement and participation. Activities include games, videos, role-plays, large and small group

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discussion, use of student worksheets, homework assignments, activism letter writing, and a videotaping project. The two-lesson booster program summarizes previously learned material and discusses how this material might be used in daily living.

2. Implementation considerations (if available)

3. Descriptive information

Areas of Interest	Substance abuse prevention Substance abuse treatment
Outcomes	1: Tobacco use 2: Cost-effectiveness
Outcome Categories	Cost Tobacco
Ages	6-12 (Childhood) 13-17 (Adolescent)
Genders	Male Female
Races/Ethnicities	Black or African American Hispanic or Latino White Race/ethnicity unspecified
Settings	School
Geographic Locations	Urban Suburban Rural and/or frontier
Implementation History	Project TNT has reached approximately 50,000 students involved in experimental trials and other implementations. The developer has conducted at least 88 evaluations of independent Project TNT implementations and estimates that approximately 20 additional evaluations have been conducted. The longest continuous implementation of Project TNT is at least 4 years.
NIH Funding/CER Studies	Partially/fully funded by National Institutes of Health: Yes Evaluated in comparative effectiveness research studies: Yes
Adaptations	No population- or culture-specific adaptations were identified by the

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	applicant.
Adverse Effects	No adverse effects, concerns, or unintended consequences were identified by the applicant.
IOM Prevention Categories	Universal

4. Outcomes

Outcome 1: Tobacco use

Description of Measures	Tobacco use was measured using a self-report questionnaire assessing lifetime tobacco use and frequency of use.
Key Findings	The study assigned 48 junior high schools to one of four Project TNT treatment conditions or a usual care control condition. One Project TNT treatment condition exposed students to the full Project TNT curriculum. The other treatment conditions tested independent implementations of three Project TNT curriculum components targeting factors that influence tobacco use: normative social influence (e.g., peer offers to use tobacco as a form of acceptance), informational social influence (e.g., advertising or pro-tobacco-use statements by peers), and knowledge of the physical consequences of tobacco use. Students in the usual care control condition were exposed to the typically occurring anti-tobacco efforts implemented in their schools. From posttest to 1-year follow-up: • Although tobacco use generally increased in the sample, students in the physical consequences, informational social influence, and full curriculum conditions showed smaller increases in trial cigarette use (6.1%, 7.1%, and 7.3%, respectively) than students in the control and normative social influence conditions (9.3% and 10.2%, respectively) ($p < .05$). • Students in the full curriculum, physical consequences, and informational social influence conditions showed smaller increases in weekly cigarette use (2.0%, 2.6%, and 3.2%, respectively) than students in the normative social influence and control conditions (5.3% and 5.6%, respectively) ($p < .05$). • Students in the full curriculum, physical consequences, and normative social influence conditions showed smaller increases in trial smokeless tobacco use (1.7%, 2.4%, and 2.6%, respectively) than students in the informational social influence and control conditions (3.5% and 4.1%, respectively) ($p < .05$).

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	• While students in the full curriculum condition showed a decrease in weekly smokeless tobacco use (0.4%), use increased among students in the normative social influence, informational social influence, control, and physical consequences conditions (0.3%, 0.5%, 0.5%, and 0.6%, respectively) ($p < .05$). From posttest to 2-year follow-up: • Although tobacco use generally increased in the sample, students in the physical consequences, informational social influence, full curriculum, and normative social influence conditions showed smaller increases in trial cigarette use (13%, 15%, 16%, and 17%, respectively) than students in the control condition (23%) ($p < .05$). • Students in the full curriculum condition also showed smaller increases in weekly cigarette use (4%) than students in the control group (9%) ($p < .05$). • While students in the physical consequences condition showed no change in trial use and a decrease in weekly use (1%) of smokeless tobacco, students in the control condition showed an increase in use (7% and 1%, respectively) ($p < .05$).
Studies Measuring Outcome	Study 1
Study Designs	Experimental
Quality of Research Rating	3.3 (0.0-4.0 scale)

Outcome 2: Cost-effectiveness

Description of Measures	Data were collected to estimate life years (LYs) saved, quality-adjusted life years (QALYs) saved, and lifetime medical costs saved, discounted 3% annually as recommended by the Panel on Cost- Effectiveness in Health and Medicine. Program costs incurred during the 2-year implementation of Project TNT were included as intervention costs. All costs were in 1990 dollars to correspond with the time of the intervention. The cost-effectiveness of Project TNT was compared with that of the control scenario and was assessed in terms of the cost per LY saved and the cost per QALY saved.
Key Findings	The base-case analysis estimated that the intervention cost $16,403 ($13.29 per student) and that the full Project TNT intervention would prevent 34.9 students from becoming established smokers. As a result, society could expect to save $327,140 in medical care costs, with a total of 23.3 discounted LYs saved and a total of 36.6 discounted QALYs saved.

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	These data translated into a cost savings of $13,316 per LY saved and $8,482 per QALY saved. When medical costs were excluded from the analysis, the estimated intervention cost was $703 per LY saved and $448 per QALY saved.
Studies Measuring Outcome	Study 1
Study Designs	Experimental
Quality of Research Rating	3.4 (0.0-4.0 scale)

5. Cost effectiveness report (Washington State Institute of Public Policy – if available)

6. Washington State results (from Performance Based Prevention System (PBPS) – if available)

7. Where is this program/strategy being used (if available)?

Washington Counties	Oregon Counties

8. Study Populations

The studies reviewed for this intervention included the following populations, as reported by the study authors.

Study	Age	Gender	Race/Ethnicity
Study 1	6-12 (Childhood) 13-17 (Adolescent)	50% Female 50% Male	60% White 27% Hispanic or Latino 7% Black or African American 6% Race/ethnicity unspecified

9. Quality of studies

The documents below were reviewed for Quality of Research. Other materials may be available. For more information, contact the developer(s).

Study 1

Dent, C. W., Sussman, S., Stacy, A. W., Craig, S., Burton, D., & Flay, B. R. (1995). Two-year behavior outcomes of Project Towards No Tobacco Use. Journal of Clinical and Consulting Psychology, 63(4), 676-677.

Sussman, S., Dent, C. W., Burton, D., Stacy, A. W., & Flay, B. R. (1994). Developing school-based tobacco use prevention and cessation programs. Thousand Oaks, CA: Sage.

Sussman, S., Dent, C. W., Stacy, A. W., Hodgson, C. S., Burton, D., & Flay, B. R. (1993). Project Towards No Tobacco Use: Implementation, process and post-test knowledge evaluation. Health Education Research, 8(1), 109-123.

Sussman, S., Dent, C. W., Stacy, A. W., Sun, P., Craig, S., Simon, T. R., et al. (1993). Project Towards No Tobacco Use: 1-year behavior outcomes. American Journal of Public Health, 83(9), 1245-1250.

Wang, L. Y., Crossett, L. S., Lowry, R., Sussman, S., & Dent, C. W. (2001). Cost-effectiveness of a school-based tobacco-use prevention program. Archives of Pediatrics and Adolescent Medicine, 155(9), 1043-1050.

Supplementary Materials

Meshack, A. F., Hu, S., Pallonen, U. E., McAlister, A. L., Gottlieb, N., & Huang, P. (2004). Texas Tobacco Prevention Pilot Initiative: Processes and effects. Health Education Research, 19(6), 657-668.

Project TNT, University of Southern California. (1998). Project Towards No Tobacco Use student workbook. Santa Cruz, CA: ETR Associates.

Quality of Research Ratings by Criteria (0.0-4.0 scale)

External reviewers independently evaluate the Quality of Research for an intervention's reported results using six criteria:

1. Reliability of measures
2. Validity of measures
3. Intervention fidelity
4. Missing data and attrition
5. Potential confounding variables
6. Appropriateness of analysis

For more information about these criteria and the meaning of the ratings, see Quality of Research.

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Outcome	Reliability of Measures	Validity of Measures	Fidelity	Missing Data/Attrition	Confounding Variables	Data Analysis	Overall Rating
Personal commitment not to use drugs	2.5	2.0	2.5	2.1	1.8	2.5	2.2
Lifestyle incongruence	2.5	2.0	2.5	2.1	1.8	2.5	2.2

Study Strengths

The program makes use of a curriculum-based intervention model. Pilot study data were used to fine-tune the measures to ensure their relevance to the population. The cost-effectiveness analysis used a systematic process.

Study Weaknesses

Some of the schools in the study had other drug prevention programs in place during the time of the Project TNT intervention, which may have affected the findings. For the cost-effectiveness outcome, the estimates of tobacco use were based on staff estimates and pilot data.

10. Readiness for Dissemination

The documents below were reviewed for Readiness for Dissemination. Other materials may be available. For more information, contact the developer(s).

Dissemination Materials

Evaluation forms:

- Project TNT Implementation Evaluation
- Project TNT Quality Assurance/Process Evaluation Measures
- Project TNT School Staff Survey
- Project TNT Session Evaluation Form: Teacher Self-Report
- Project TNT Session Observation Form

Program Web site, http://tnd.usc.edu/tnt/

Sussman, S., Barovich, M., Hahn, G., Abrams, C., Selski, E., & Craig, S. (2004). Project Towards No Tobacco Use student workbook. Scotts Valley, CA: ETR Associates.

Sussman, S., Barovich, M., Hahn, G., Abrams, C., Selski, E., & Craig, S. (2004). Project Towards No Tobacco Use teachers guide. Scotts Valley, CA: ETR Associates.

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SVE & Churchill Media. (1987). Stand up for yourself: Peer pressure and drugs [VHS]. Chicago, IL.

University of Southern California Institute for Prevention Research. (n.d.). Tobacco use social images [VHS]. Los Angeles: University of Southern California.

Readiness for Dissemination Ratings by Criteria (0.0-4.0 scale)

External reviewers independently evaluate the intervention's Readiness for Dissemination using three criteria:

1. Availability of implementation materials
2. Availability of training and support resources
3. Availability of quality assurance procedures

For more information about these criteria and the meaning of the ratings, see Readiness for Dissemination.

Implementation Materials	Training and Support Resources	Quality Assurance Procedures	Overall Rating
4.0	4.0	4.0	4.0

Dissemination Strengths

Program materials are well organized and formatted for uncomplicated, real-time implementation. Training is offered by the developer in 1- and 2-day formats and can be arranged for delivery at either the program developer's or the implementer's site. The developer provides customized technical assistance and support to implementers. Process and outcome measures are provided with evaluation guidance to support quality assurance.

Dissemination Weaknesses

No weaknesses were identified by reviewers.

11. Costs (if available)

The information below was provided by the developer and may have changed since the time of review. For detailed information on implementation costs (e.g., staffing, space, equipment, materials shipping and handling), contact the developer.

Item Description	Cost	Required by Program Developer
Teacher's guide	$45 each	Yes
Student workbook	$19 for five	Yes

Tobacco Use Social Images video	$40 each	No
Stand Up for Yourself: Peer Pressure and Drugs video	$80 each	No
Developing School-Based Tobacco Use Prevention and Cessation Programs (book)	$61 each	No
1-day, on-site training	$1,100-$1,300 for up to 25 participants, plus travel expenses	No
2-day, on-site training	$1,800-$2,000 for up to 25 participants, plus travel expenses	No
Student surveys	Free	No

12. Contacts for more information

For information on implementation:

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Learn More by Visiting: http://tnd.usc.edu/tnt/

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