Project Towards No Drug Abuse (TND)

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Breakout Session: Topics

- Theoretical foundation of Project TND
- Evaluation research findings
- Project TND objectives, content, methods, and activities
- Fidelity of TND implementation
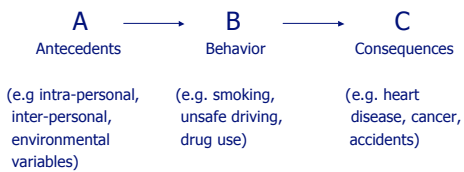- TND dissemination

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Background

- Very few effective drug abuse prevention programs that target senior high school-age youth (14-18) have been developed.
- For younger teens (middle school), drug abuse prevention programs based on social influences model have been most effective.
  - For older teens, a different approach is needed.
- Project TND is an effective drug abuse prevention program that targets high school age youth.
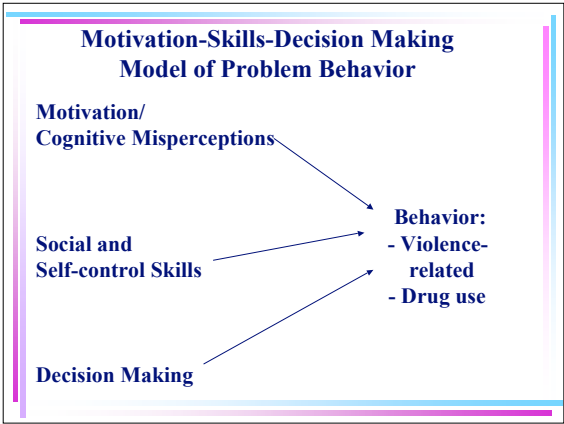
Project TND Awards and Recognition

- Considered a "model" program by:
  - National Institute on Drug Abuse (NIDA)
  - U.S. Department of Education
  - Substance Abuse and Mental Health Services Administration (SAMSHA): NREPP and CSAP
  - University of Colorado "Blueprints" Project
  - Health Canada
  - California Department of Education
  - Maryland Blueprints
  - U.S. Department of Defense

Project TND
Model and Theory

The ABCs of
Health Behavior Research

A   →   B   →   C

Antecedents   Behavior   Consequences

(e.g intra-personal, inter-personal, environmental variables)   (e.g. smoking, unsafe driving, drug use)   (e.g. heart disease, cancer, accidents)

**Motivation-Skills-Decision Making
Model of Problem Behavior**

Motivation/
Cognitive Misperceptions

Social and
Self-control Skills

Decision Making

Behavior:
- Violence-
  related
- Drug use

Motivation

In TND lessons (#2, 3, 8, 11), students:
- Examine their beliefs and perspectives
- Examine their ambivalence about drug use
- Clarify what kind of person they are and what they value
- Resolve self arguments

Behavioral Skills

- Youth at high risk for drug abuse lack:
  – Self-control skills
  – Anger management skills
  – Pro-social listening and conversation skills
- Instruction in behavioral skills facilitates:
  – Bonding to variety of peer groups
  – Ability to seek social support when needed
  – Coping with stressful situations

Skill Development in TND

- Social skills
  - Session 1: Active listening. Students learn the importance of listening and other communication skills.
- Self-control
  - Session 9: Self-Control. Students learn how to match their behavior to different social situations.
- Coping
  - Session 8: Stress, Health, and Goals. Students learn healthy alternatives for coping with stress.

Decision Making in TND

- Session 12: Decision-Making and Commitment
  - Students examine the many choices they have about behaviors, including drug use.
  - They make a personal commitment regarding drug use (e.g., to think about the dangers of drug use, reduce or quit drug use, or continue to be drug free).

Target Audience for Project TND

- High school youth, ages 14-19, including males and females
- Students in regular and alternative high schools
- Youth from diverse cultural/ethnic groups (e.g., white, Latino/Hispanic, African American, Asian)

Objectives of the Program

- At the completion of this program, students will be able to:
  - Stop or reduce the use of cigarettes, alcohol, marijuana and hard drugs
  - Stop or reduce weapon carrying
  - State accurate information about environmental, social, physiological and emotional consequences of drug use and abuse
  - Demonstrate behavioral and cognitive skills
  - Make a personal commitment about drug use

Program Evaluation Research

Evaluation of TND

- 6 experimental (randomized) evaluation studies have been conducted since 1994.
- Studies have involved ethnically diverse groups of students from regular and alternative high schools, in urban, suburban, and rural areas.

Early TND Evaluation Studies (1994-2000)

	Design (Random assignment)	Implementers	Setting
1.	Program vs. control	USC health educators	Alternative* high schools (CA.)
2.	Program vs. control	USC health educators	Regular high schools (CA.)
3.	Program taught vs. self-instruction	USC health educators	Alternative* high schools (CA.)

* In California, alternative high schools are referred to as "continuation" high schools. Across the 3 studies, more than 2400 students participated.

Demographic Characteristics of Students in the Early TND Evaluations

Demographics	Study 1 (AHS)	Study 2 (RHS)	Study 3 (AHS)
% Male	62	47	54
% Anglo	37	34	45
% Latino	46	38	42
% African American	8	26	5
% Asian	4	1	1
% Other ethnicity	5	1	1

NOTES: AHS=Alternative High School; RHS = Regular High School; N=2473

Baseline Behavioral Characteristics of Students in the Early TND Evaluation Studies

Drug Use	Study 1 (AHS)	Study 2 (RHS)	Study 3 (AHS)
% Using CIGARETTES	57	24	57
% Using ALCOHOL	64	36	63
% Using MARIJUANA	55	22	54
% Using HARD DRUGS	29	7	30

Violence	M	F	M	F	M	F
% WEAPON CARRYING	60	22	34	15	53	18
% VICTIMIZED	68	40	37	28	60	50

NOTES: AHS=Alternative High School; RHS = Regular High School
M=males, F=females.
Drug use %: pertains to any use in last 30 days. "Hard drugs" includes stimulants, hallucinogens, cocaine, inhalants, and other drugs.
Violence %: pertains to any such behavior in the last 12 months.
Weapon carrying includes guns and/or knives.
N=2473

Drug Use and Violence-Related Effects across the first 3 TND Evaluation Studies: Compares Reduction of Program Group(s) Relative to Control Group(s)

	Study 1 (AHS)	Study 2 (RHS)	Study 3 (AHS)
Cigarettes	NS	NS	27%
Alcohol	7%	12%	9%
Marijuana	NS	NS	22%
Hard Drugs	25%	25%	26%
Victimization*	23%	17%	6%
Weapon Carrying*	21%	19%	25%

Notes: AHS=alternative high schools; RHS=regular high schools; NS=not statistically significant; drug use refers to last 30 days; violence indicators refer to last 12 months; * = among males only

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Recent TND Evaluation Studies (2000 to present)

	Design (Random assignment)	**Implementers**	**Setting***
4.	Program vs. control	USC health educators and trained classroom teachers	Regular and alternative high schools (CA.)
5.	TND vs. TND w/ social network focus vs. control	USC health educators	Alternative high schools (CA.)
6.	Program (regular teacher training) vs. program (enhanced training) vs. control	Trained classroom teachers	Regular and alternative high schools (across U.S.)

*Across 3 studies, more than 5700 students participated.

Demographic Characteristics of Students in Recent TND Evaluations

Demographics	Study 4 (AHS/RHS)	Study 5 (AHS)	Study 6 (AHS/RHS)
% Male	52	62	48
% Anglo	18	11	41
% Latino	62	72	29
% African American	8	6	16
% Asian	8	0	3
% Other ethnicity	4	11	11

NOTES: AHS=Alternative High School; RHS = Regular High School; N=5757 across 3 studies

Key Findings from Recent TND Evaluations

Study 4:

- TND program had an effect on reducing hard drug use at 1-year follow-up.
- Fidelity of implementation (based on classroom observations) was comparable between USC health educators and trained classroom teachers.

Key Findings from Recent TND Evaluations

Study 5:

- TND Network program (includes some activities taught with students in peer network groups) had effect on reducing substance use (marijuana, cocaine) at 1-year follow-up.
- TND Network was effective mainly for students with peer networks that did not use drugs.

Key Findings from Recent TND Evaluations

Study 6:

- TND had effects on short-term outcomes (program-specific knowledge, beliefs, and coping skills) in program vs. control groups.
- Preliminary findings indicate more positive short-term outcomes in classrooms where teachers received enhanced training vs. where teachers received regular training.

Program Overview and Implementation

Program Delivery

- Includes 12 classroom-based lessons
  - Approximately 40-50 minutes each
- Implemented over a 4-week period (3-4 days per week)
  - Option: the program can be implemented twice a week for 6 weeks, on the condition that all lessons are taught.

Project TND Curriculum Outline

- Session 1: Introduction-Communication and Active Listening
- Session 2: Stereotyping
- Session 3: Myths and Denial
- Session 4: Chemical Dependency
- Session 5: Talk Show
- Session 6: Marijuana Panel*
- Session 7: Tobacco Basketball and Cessation*
- Session 8: Stress, Health, and Goals
- Session 9: Self-Control
- Session 10: Positive and Negative Thought and Behavior Loops*
- Session 11: Perspectives
- Session 12: Decision-making and Commitment

Note: * = Three new lessons added to the TND-1 curriculum to comprise the (current) 12-session TND-2 curriculum.

Teaching Strategies:
Socratic Method

- Emphasis on interaction of students with teacher, and students with each other
- Teacher's use of questioning to elicit existing knowledge
- Students assemble facts and draw conclusions from facts
- Students tend to "own" the answers they produce, which enhances their beliefs against drug abuse

Methods: The T.N.D. Game

- Designed to:
  - Motivate student participation
  - Reinforce learning
  - Aid the teacher with classroom management
- Used as:
  - Previous session review at the beginning of class
  - Session summary at the end of class

Methods: Psychodrama (Talk Shows)

- Involves having a person behave like they would in a real world situation.
- Provides students with training in empathy.
- Allows students to better appreciate drug abuse consequences by experiencing a network of drug abuse-related social roles.

Methods: Role-Playing

- Involves having students practice how to handle social situations that they may experience in the future.
- Is used in session 9 (Self Control).

Additional Methods for Student Involvement

- Group discussion
- Student worksheets (e.g., character lists)
- Peer perspectives (e.g., cue cards)

Materials Needed for Session Delivery

- TND Teacher's Manual and student workbooks
- TND Game board and pieces
- TND Game score sheets
- TND Video "Drugs and Life's Dreams"
- Flip chart, white board, or overhead projector
- Role sheets

Fidelity in Project TND

- Process:
  - Interactive student involvement
  - Implementer enthusiasm
- Dosage: complete all 12 sessions
- Adherence: sessions taught as written (i.e., content and methods)
- Structure:
  - Delivery schedule of 3-4 days per week
  - Classroom-based (10 participants min.)

Dissemination of Project TND

Research to Practice: Selected Critical Issues

- Will "real world" settings adopt evidence-based prevention programs and implement them with fidelity?

- Will they achieve program effects?

- What type of training, technical assistance, and organizational capacity-building is necessary for effective implementation?

Project TND Dissemination

- Since 2001, program has been adopted by hundreds of organizations nationwide

- In 2005, we interviewed 120 organizations that had purchased TND ("early adopters"):
  - 37% schools or districts
  - 48% community-based agencies
 - 15% other (including health/mental health depts.)

Sussman et al., 2001; 2003; 2005

Program Implementation by Early Adopters

- Program Setting*:
  - 51% regular high school
  - 51% alternative high school
  - 24% community
  - 18% other (e.g., juvenile justice)
- Implementer:
  - 30% classroom teacher
  - 42% prevention specialist or health educator
  - 26% therapist or counselor
- Training:
  - 44% trained by USC certified trainer

* Respondents (n=120) could check more than one category

Perceived Student Responses to Project TND

Positive	
Neutral	
Negative	
Mixed	
Other	
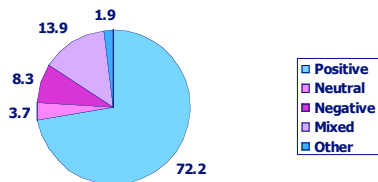
N=120

Project TND Dissemination Trial: Primary Research Questions

☞ Is TND effective when implemented by high school teachers in "real world" settings?

☞ What is the most effective model for training teachers and preparing schools?

Project TND Dissemination Trial: 3-Condition Design

R →

- Standard teacher training workshop

- Comprehensive implementation support
  - Workshop
  - Web-based Support
  - Coaching (on-site)
  - Technical Assistance
  - Organizational Consultation

- Delayed-intervention control

Study Sample

- 65 high schools (58 regular and 7 alternative); 2800 students

- Schools had at least 1 teacher who volunteered to participate in TND training and implement the program

- School size: mean enrollment was 1877 students for regular (grades 9-12) and 137 students for alternative high schools

- Student ethnicity:
  - 41% white
  - 29% Latino
  - 16% African American
  - 3% Asian
  - 7% Mixed
  - 4% other

Location of TND Dissemination Trial Sites
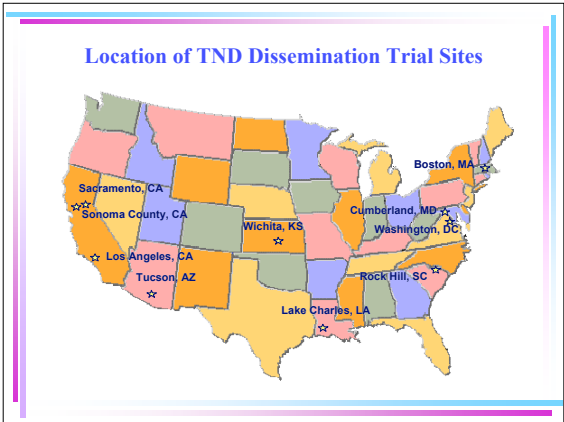
Process Evaluation: Teacher Data

- Sample: 79 teachers from 65 schools
- Gender: 51.8% female
- Ethnicity:
  - 80.3% White
  - 11.5% African American
  - 6.6% Latino
  - 1.6% Asian
- Average teaching experience: 15.3 years

Teachers' Reactions to TND

Variable	Mean
Post-training confidence: can do a good job (1-10)	8
Post-program confidence: did a good job (1-7)	6.1
Post-program: Liking of TND (1-7)	5.9
Post-program: Comfort w/ approach (1-7)	5.5

Teachers' Reactions: Examples

- Liked the most about TND:
  - *It was very easy to implement into our health curriculum.*
  - *Easy to follow lesson plans.*
  - *Games and discussion panels made the class fun and enjoyable.*
- Liked the least about TND:
  - *A little more training would have been helpful, to model how to teach the program.*

Fidelity Assessment

- Program dosage
  - Self-reported mean completion of lessons = 2.9
  - Scale is 1=none of lesson, 2=part lesson, 3=full lesson
- Quality of delivery
  - In-class ratings of confidence, enthusiasm, student interest, interactivity, etc. by USC observer

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Fidelity Results

Fidelity Variable	Mean
Objectives of lesson met (1-7)	4.5
Teacher elicited responses (1-7)	4.1
Teacher enthusiasm (1-7)	4.8
Student interest (1-7)	4.6
Class control (1-7)	4.8
Global rating: how well it went (1-3)	1.7

N=99 teachers

TND Dissemination Trial: Immediate Student Outcomes

- Relative to controls, program groups had:
  - Weaker intentions to use marijuana and hard drugs in the future
  - Stronger anti-drug attitudes
  - Stronger belief in health as a value
  - Weaker belief in drug use myths
  - Higher program-specific knowledge scores
- The enhanced teacher training produced more positive outcomes (intentions, attitudes, knowledge) than did the regular training.

Taking Project TND to Scale: Summary

- TND is implemented in school and non-school settings
- Reactions to the program have been very positive
- Fidelity appears comparable to that in our previous trials (specialist-delivered)
- In "real world" school settings, immediate outcomes are achieved.
- Student outcome data suggests that teacher training workshop plus implementation support is better than workshop alone.