

# ***Excellence in Prevention*** – descriptions of the prevention programs and strategies with the greatest evidence of success

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## **Name of Program/Strategy: Project Towards No Drug Abuse**

### **Report Contents**

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### **1. Overview and description**

Project Towards No Drug Abuse (Project TND) is a drug use prevention program for high school youth. The current version of the curriculum is designed to help students develop self-control and communication skills, acquire resources that help them resist drug use, improve decision-making strategies, and develop the motivation to not use drugs. It is packaged in 12 40-minute interactive sessions to be taught by teachers or health educators. The TND curriculum was developed for high-risk students in continuation or alternative high schools. It has also been tested among traditional high school students.

### **2. Implementation considerations (if available)**

### **3. Descriptive Information**

<b>Areas of Interest</b>	Substance abuse prevention
<b>Outcomes</b>	1: Alcohol and tobacco use

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	2: Marijuana and "hard drug" use 3: Risk of victimization 4: Frequency of weapons-carrying
<b>Outcome Categories</b>	Alcohol Crime/delinquency Drugs Tobacco Violence
<b>Ages</b>	13-17 (Adolescent) 18-25 (Young adult)
<b>Genders</b>	Male Female
<b>Races/Ethnicities</b>	American Indian or Alaska Native Asian Black or African American Hispanic or Latino White Race/ethnicity unspecified
<b>Settings</b>	School
<b>Geographic Locations</b>	No geographic locations were identified by the applicant.
<b>Implementation History</b>	Approximately 1,600 individuals or sites in 44 States purchased Project TND materials between 2001 and 2009. The developer has conducted evaluations or experimental trials in 88 of those sites with more than 8,500 youth and estimates that another 20 sites have conducted their own evaluations.
<b>NIH Funding/CER Studies</b>	Partially/fully funded by National Institutes of Health: Yes Evaluated in comparative effectiveness research studies: No
<b>Adaptations</b>	Project TND was initially developed for high-risk students attending alternative or continuation high schools. It has been adapted for students attending traditional high schools.
<b>Adverse Effects</b>	No adverse effects, concerns, or unintended consequences were identified by the applicant.
<b>IOM Prevention Categories</b>	Universal Selective Indicated

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## **4. Outcomes**

### **Outcome 1: Alcohol and tobacco use**

<b>Description of Measures</b>	Self-reported frequency of alcohol and tobacco use in the past 30 days was measured at pretest, immediately after the Project TND intervention, and yearly for up to 5 years after the intervention. In some analyses, students who were high alcohol users at pretest were compared across conditions, and the data from males and females were analyzed separately when interactions were found.
<b>Key Findings</b>	At 1-year follow-up across three studies, students in Project TND schools who used alcohol prior to the intervention exhibited a reduction in alcohol use prevalence of between 7% and 12% ( $p < .05$ ) relative to similar students in control schools. At 1-year follow-up of a study using an expanded 12-session TND curriculum, students in Project TND schools exhibited a reduction in cigarette use of 27% ( $p < .05$ ) relative to students in control schools. At 2-year follow-up, students in Project TND schools were about half as likely to use tobacco ( $p = .016$ ) when compared with students in control schools.
<b>Studies Measuring Outcome</b>	Study 1, Study 2, Study 3, Study 4
<b>Study Designs</b>	Experimental
<b>Quality of Research Rating</b>	3.3 (0.0-4.0 scale)

### **Outcome 2: Marijuana and "hard drug" use**

<b>Description of Measures</b>	Self-reported frequency of marijuana and hard drug use in the past 30 days was measured at pretest, immediately after the Project TND intervention, and yearly for up to 5 years after the intervention. In some analyses presented, the measures were coded as "user" or "nonuser," high pretest users were examined separately, and males and females were examined separately.
<b>Key Findings</b>	At 1-year follow-up across three studies, students in Project TND curriculum schools exhibited a 25% reduction in rates of hard drug use relative to students in control schools ( $p < .05$ ). At 1-year follow-up of a study using an expanded 12-session TND curriculum, students in Project TND schools exhibited a reduction in marijuana use of 22% ( $p < .05$ ) relative to students in control schools. At 2-year follow-up, students in Project TND schools were about

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	<p>one fifth as likely to use hard drugs (<math>p = .02</math>) and, among males who were nonusers at pretest, about one tenth as likely to use marijuana (odds ratio = 0.12, <math>p = .03</math>), relative to similar students in control schools.</p> <p>At 4- to 5-year follow-up, students in Project TND schools were less likely to report using hard drugs than students in control schools (<math>p = .02</math>).</p>
<b>Studies Measuring Outcome</b>	Study 1, Study 2, Study 3, Study 4
<b>Study Designs</b>	Experimental
<b>Quality of Research Rating</b>	3.4 (0.0-4.0 scale)

### **Outcome 3: School competence and achievement**

<b>Description of Measures</b>	<p>School competence and achievement were assessed using self-report items from two instruments:</p> <ul style="list-style-type: none"> <li>• Self-Perception Profile for Children--Scholastic Competence Scale. Youth reported their ability to complete their homework.</li> <li>• Big Brothers Big Sisters Outcome Survey. Youth reported whether or not in the past month they skipped a class without a valid excuse and skipped a day of school without a valid excuse.</li> </ul>
<b>Key Findings</b>	<p>Ten- to 16-year-old youth were randomly assigned to the intervention group, which participated in the Big Brothers Big Sisters Mentoring Program, or to a wait-list control group. Data were collected for both groups at baseline and at the 18-month follow-up. At the 18-month follow-up, youth in the intervention group felt more confident in their ability to complete their homework compared with youth in the control group (<math>p &lt; .01</math>), and youth in the intervention group had skipped 37% fewer classes (<math>p &lt; .05</math>) and 52% fewer days of school (<math>p &lt; .01</math>) than youth in the control group.</p>
<b>Studies Measuring Outcome</b>	Study 1
<b>Study Designs</b>	Experimental
<b>Quality of Research Rating</b>	3.1 (0.0-4.0 scale)

### **Outcome 4: Family relationships**

<b>Description of Measures</b>	<p>Family relationships were assessed using self-report items from two instruments:</p> <ul style="list-style-type: none"> <li>• Big Brothers Big Sisters Outcome Survey. Youth reported the number of times the youth lied to their parent in the past</li> </ul>
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	<p>month.</p> <ul style="list-style-type: none"> <li>Inventory of Parent and Peer Attachment (IPPA). Youth reported their relationship with their custodial parent using the Relationship With Mother Scale of the IPPA, including the trust, communication, and anger and alienation subscales, as well as the summary parental relationship measure.</li> </ul>
<b>Key Findings</b>	Ten- to 16-year-old youth were randomly assigned to the intervention group, which participated in the Big Brothers Big Sisters Mentoring Program, or to a wait-list control group. Data were collected for both groups at baseline and at the 18-month follow-up. At the 18-month follow-up, fewer youth from the intervention group had lied to their parent compared with youth in the control group ( $p < .05$ ). Also at the 18-month follow-up, youth in the intervention group had better relationships with their parent ( $p < .05$ ) and more trust in their parent ( $p < .05$ ) compared with youth in the control group; however, no statistically significant differences were found between groups in regard to communication, anger, and alienation.
<b>Studies Measuring Outcome</b>	Study 1
<b>Study Designs</b>	Experimental
<b>Quality of Research Rating</b>	3.1 (0.0-4.0 scale)

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

<p><b>Benefits minus cost, per participant</b></p> <p><b>Return on Investment: Evidence-Based Options to Improve Statewide Outcomes - July 2011 Update.</b> Washington State Institute for Public Policy, <a href="http://www.wsipp.wa.gov/rptfiles/11-07-1201.pdf">http://www.wsipp.wa.gov/rptfiles/11-07-1201.pdf</a>.</p> <p><b>Benefits and Costs of Prevention and Early Intervention Programs for Youth – 2004 update.</b> Washington State Institute for Public Policy, <a href="http://www.wsipp.wa.gov/pub.asp?docid=04-07-3901">http://www.wsipp.wa.gov/pub.asp?docid=04-07-3901</a>.</p> <p><b>Costs and Benefits of Prevention and Early Intervention Programs for At-Risk Youth: Interim Report – 2003.</b> Washington State Institute for Public Policy, <a href="http://www.wsipp.wa.gov/pub.asp?docid=03-12-3901">http://www.wsipp.wa.gov/pub.asp?docid=03-12-3901</a>.</p>	<p><b>According to the WSIPP study, this program strategy returns</b></p> <p><b><u>\$279</u></b></p> <p>in savings that would otherwise be associated with education, substance abuse, teen pregnancy, child abuse and neglect, or criminal justice system.</p>
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## 6. Washington State results (from Performance Based Prevention System (PBPS) – if available)

Scale	Result	Direction	N	Instruments used for this program
Peer Approval of Use	significant	improvement	181	PPG-Individual/Peer [PPG03]
Refusal Skills (Peer)	significant	improvement	160	PPG-Individual/Peer [PPG03]
Risk of Use	significant	improvement	184	PPG-Individual/Peer [PPG03]
Disapproval of Use (peer)	significant	improvement	186	PPG-Individual/Peer [PPG03]

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

Washington Counties	Oregon Counties
Wahkiakum	

## 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)	60% Male 40% Female	45% White 36% Black or African American 9% Hispanic or Latino 8% Race/ethnicity unspecified 2% American Indian or Alaska Native

## 9. Quality of Research

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

### Study 1

Botvin, G. J., Baker, E., Dusenbury, L., Botvin, E. M., & Diaz, T. (1995). Long-term follow-up results of a randomized drug abuse prevention trial in a White middle-class population. *Journal of the American Medical Association*, 273(14), 1106-1112.

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Grossman, J. B., & Tierney, J. P. (1998). Does mentoring work? An impact of the Big Brothers Big Sisters program. *Evaluation Review*, 22 (3), 403-426.

Tierney, J. P., Grossman, J. B., & Resch, N. L. (1995, November). Making a difference. An impact study of Big Brothers Big Sisters. Philadelphia, PA: Public/Private Ventures.

## **Supplementary Materials**

Mentor Strength of Relationship Survey

Youth Outcomes Survey

Youth Strength of Relationship Survey

## **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.

Outcome	Reliability of Measures	Validity of Measures	Fidelity	Missing Data/Attrition	Confounding Variables	Data Analysis	Overall Rating
<b>1: Initiation of drug use</b>	2.7	2.7	3.2	2.8	3.2	3.3	<b>3.0</b>
<b>2: Aggressive behavior</b>	2.7	2.7	3.2	2.8	3.2	3.3	<b>3.0</b>
<b>3: School competence and achievement</b>	3.2	3.0	3.2	2.8	3.2	3.3	<b>3.1</b>
<b>4: Family relationships</b>	3.0	3.0	3.2	2.8	3.2	3.3	<b>3.1</b>

## **Study Strengths**

Mentors met with their assigned youth on a frequent basis (i.e., more than 70% met at least three times per month, and approximately 45% met at least once per week, with the average meeting lasting 3.6 hours), thus providing some measure of intervention fidelity. Attrition was relatively low in both the

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intervention and wait-list control groups, and both the baseline and follow-up surveys were completed by approximately 84% of the total sample. The study had a large sample size and used random assignment. There were no important differences in characteristics between those assigned to the intervention group and those assigned to the control group. The analyses used were appropriate and very thorough. A variety of multivariate and subgroup analyses were conducted, and intent-to-treat analysis was used.

## **Study Weaknesses**

Only alpha coefficients of measures were used to establish reliability. Although face validity was reported for the measures, other types of validity were not. There was no discussion of missing data other than a narrative report by the study authors, who stated that there were very little missing 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**

Big Brothers Big Sisters of America. (2000). Membership affiliation agreement. Philadelphia, PA: Author.

Big Brothers Big Sisters of America. (2007). 2007-2010 nationwide strategic direction. Philadelphia, PA: Author.

Big Brothers Big Sisters of America. (2009). Onboarding program staff: Participant guide. Philadelphia, PA: Author.

Big Brothers Big Sisters of America. (n.d.). Personal safety awareness for teens: Relationships. Philadelphia, PA: Author. Big Brothers Big Sisters of America. (n.d.). Talking with grown-ups. Philadelphia, PA: Author.

Big Brothers Big Sisters of America, Agency Connection Web site, <http://agencyconnection.bbbs.org/site/>, including the following materials:

- Match Activity Workbook
- Parent Orientation Guide
- Preparing Volunteers Guide
- SDM Part 1--Checklist of Essential Practices
- SDM Part 1--Forms
- Service Delivery Job Descriptions and Interview Guide
- Service Delivery Model (SDM) Part 1 Manual

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- Staff Guide for Orientation
- Supplemental Handouts
- Volunteer Selection Policy

Big Brothers Big Sisters of America, Learning Center training site, [http://rod.sumtotalsystems.com/bbbs/app/SYS\\_login.aspx](http://rod.sumtotalsystems.com/bbbs/app/SYS_login.aspx), including the following materials:

- BBBS Program Overview
- Customer Relations On-the-Job Training
- Enrollment and Matching On-the-Job Training
- Fundamentals of Youth Protection
- Match Support On-the-Job Training
- SDM for Customer Relations v.2
- SDM for Enrollment and Matching v.2
- SDM for Match Support v.2

Mentor Strength of Relationship Survey

Strength of Relationship Overview [PowerPoint slides]

Strength of Relationship Training and Fidelity [PowerPoint slides] Youth Outcomes Survey

Youth Strength of Relationship Survey

## **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.

<b>Implementation Materials</b>	<b>Training and Support Resources</b>	<b>Quality Assurance Procedures</b>	<b>Overall Rating</b>
4.0	3.8	3.3	<b>3.7</b>

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## **Dissemination Strengths**

Extensive implementation materials are available online and provide detailed information on program implementation requirements, including the necessary budget, program policies, and organizational expectations. An affiliation agreement codifies these expectations, which require that implementing organizations adhere to the BBBSA policies. The program offers extensive online and in-person training, with curricula for staff and program managers. Self-assessment tools support quality assurance at various levels (e.g., individual staff, implementing organization).

## **Dissemination Weaknesses**

Training materials for mentors are difficult to identify on the program Web sites. Although strength of relationship surveys are available for youth and mentors, it is not clear how they should be used to improve the program or support continuing strategic planning efforts.

## **11. Costs**

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.

<b>Item Description</b>	<b>Cost</b>	<b>Required by Program Developer</b>
Membership fee (includes standards of practice, affiliation agreement, parent and volunteer orientation guides, information for orienting program staff, child protection materials, information for program performance managers, information on agency development for regional staff, and surveys)	Varies depending on site resources (minimum of \$150,000 per year for 3 years)	Yes
Agency Information Management (AIM) System	\$2,000-\$12,000 depending on the number of youth served	No
Role-specific training for various levels of staff	Included in membership fee	Yes

## **Additional Information**

Additional resources can be accessed for free at <http://www.lifeskillstraining.com>. Resources include the LST Planning Workbook, grant writing support, and curriculum samples.

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## **12. Contacts**

**For information on implementation or research:**

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**Learn More by Visiting:** <http://www.bigbrothersbigsisters.org>