

# Appendix

## Appendix A1.1 Study characteristics: Bacon, 2001a (randomized controlled trial)

Characteristic	Description
<b>Study citation</b>	Bacon, T. P. (2001a). Evaluation of the Too Good for Drugs and Violence–High School prevention program. A report produced for the Florida Department of Education, Department of Safe and Drug-Free Schools, Tallahassee, FL. Available from: Mendez Foundation, 601 S. Magnolia Avenue, Tampa, FL 33606.
<b>Participants</b>	The study included 303 students in 20 classrooms across five high schools. About 54% of the total sample were females. The overall sample was primarily white (79%), with an equal number of African-American and Hispanic students (9%). The majority of the sample were ninth graders (81%) followed by 10% tenth graders, 5% eleventh graders, and 5% twelfth graders.
<b>Setting</b>	One large school district in Florida.
<b>Intervention</b>	The <i>Too Good for Drugs and Violence</i> (TGFVD) program, implemented during health or personal fitness classes, was integrated into the fourth quarter of instruction. Teachers delivered the programs in nine weeks rather than the program’s intended 18-week, or semester, time frame. Therefore, teachers delivered two lessons a week rather than one. In addition, the TGFVD program components related to infusing lesson units into other subject areas and strategies for community involvement were not implemented in this study.
<b>Comparison</b>	Students in the control group received the standard health and personal fitness curriculum and were not exposed to the TGFVD curriculum.
<b>Primary outcomes and measurement</b>	Students responded to paper-and-pencil questionnaires that assessed intentions to use marijuana and engage in fighting, attitudes toward nonviolence, perceptions of emotional competency skills, perceptions of social and peer resistance skills, perceptions of assertiveness skills, attitudes toward drugs, perceptions of peer norms, perceptions of peer approval, and perceptions of goals and decisionmaking skills. (See Appendix A2 for a more detailed description of outcome measures.)
<b>Teacher training</b>	Teachers received one day of training provided by representatives of the Mendez Foundation.

## Appendix A1.2 Study characteristics: Bacon, 2001b (quasi-experimental design)

Characteristic	Description
<b>Study citation</b>	Bacon, T. P. (2001b). Impact on high school students’ behaviors and protective factors: A pilot study of the Too Good for Drugs and Violence prevention program. <i>Florida Educational Research Council, Inc. Research Bulletin</i> , 32(3 and 4), 1–40.
<b>Participants</b>	The study included 394 students from 11 classrooms in one high school. About 49% of the total sample were females. The majority of the students (68%) were white, followed by 20% Hispanic, and 9% African-American. Almost half of the sample (46%) were ninth grade students, 26% were tenth graders, 12% eleventh graders, and 16% twelfth graders. About 9% of the sample was of a low socioeconomic background.
<b>Setting</b>	One school district in Florida.

(continued)

## Appendix A1.2 Study characteristics: Bacon, 2001a (randomized controlled trial) *(continued)*

<b>Characteristic</b>	<b>Description</b>
<b>Intervention</b>	The <i>TGFDV</i> group received 14 lessons during health classes. Each lesson ranged from 45 to 55 minutes.
<b>Comparison</b>	Students in the comparison group participated in the standard health and personal fitness curriculum and were not exposed to the <i>TGFDV</i> program content or any equivalent program.
<b>Primary outcomes and measurement</b>	Students responded to paper-and-pencil questionnaires that assessed intentions to use marijuana and engage in fighting, attitudes toward nonviolence, perceptions of emotional competency skills, perceptions of social and peer resistance skills, perceptions of assertiveness skills, attitudes toward drugs, perceptions of peer norms, perceptions of peer approval, and perceptions of goals and decisionmaking skills. (See Appendix A2 for a more detailed description of outcome measures.)
<b>Teacher training</b>	All lessons were delivered by program instructors (trained off-site educators). So, no training of teachers was done.

## Appendix A2 Outcome measures in the knowledge, attitudes, and values domain

Outcome measure	Description
<b>Intentions for marijuana</b>	One survey item on which students indicate if they intend to use marijuana anytime during the next year (as cited in Bacon, 2001a; Bacon, 2001b).
<b>Intentions for fighting</b>	One survey item on which students indicate if they intend to be involved in physical fights anytime during the next year (as cited in Bacon, 2001a; Bacon, 2001b).
<b>Positive attitudes toward nonviolence</b>	A seven-item student measure assessing attitudes toward violence as an acceptable way to get what one wants and toward prejudice and discrimination (as cited in Bacon, 2001a; Bacon, 2001b). A higher score indicates less support of violence.
<b>Perceptions of emotional competence and self-efficacy</b>	A nine-item measure on which students indicate if they feel confident in their ability to manage their behavior and emotions and to plan for personal goals (as cited in Bacon, 2001a; Bacon, 2001b).
<b>Perceptions of goal setting and decisionmaking skills</b>	A six-item measure on which students indicate if they manage their actions by setting goals and creating plans to reach these goals (as cited in Bacon, 2001a; Bacon, 2001b).
<b>Perceptions of social and resistance skills</b>	A nine-item measure on which students indicate if they can tell the difference between healthy and unhealthy relationships and if they are able to avoid unhealthy behaviors (as cited in Bacon, 2001a; Bacon, 2001b).
<b>Perceptions of assertiveness and self-efficacy</b>	A three-item scale on which students indicate if they are able to tell someone who has created a wrongdoing (for example, cut in line in front of them) (as cited in Bacon, 2001a; Bacon, 2001b). Perceptions of parental negative attitudes toward substance use
<b>Perceptions of parental negative attitudes toward substance use</b>	A scale composed by the study author for the purposes of this study. Students rate their parent's expectations of their children's non-use of drugs (as cited by Bacon, 2001a).

## Appendix A3 Summary of study findings included in the rating for the knowledge, attitudes, & values domain<sup>1</sup>

Outcome measure <sup>3</sup>	Study sample	Sample size (students/schools) <sup>4</sup>	Author's findings from the study					Statistical significance <sup>7</sup> (at $\alpha = 0.05$ )	Improvement index <sup>8</sup>
			Mean outcome (standard deviation <sup>2</sup> )		Mean difference <sup>5</sup> (column 1–column 2)	Effect size <sup>6</sup>			
			TGFDV group (column 1)	Comparison group (column 2)					
<b>Bacon, 2001a (randomized controlled trial)</b>									
Perceptions of social and resistance skills	Grades 9–12	303/16	4.08 (0.58)	3.77 (0.61)	0.31	0.52	Statistically significant	+20	
Perceptions of emotional competence	Grades 9–12	303/16	4.04 (0.62)	3.72 (0.65)	0.32	0.50	Statistically significant	+19	
Positive attitudes towards nonviolence	Grades 9–12	303/16	3.78 (0.79)	3.52 (0.78)	0.26	0.33	ns	+13	
Perceptions of assertiveness and efficacy	Grades 9–12	303/16	4.18 (0.70)	3.94 (0.89)	0.24	0.29	ns	+11	
Perceptions of goal setting and decisionmaking skills	Grades 9–12	303/16	3.59 (0.93)	3.43 (0.82)	0.16	0.18	ns	+7	
Intentions for marijuana (no intentions)	Grades 9–12	197/16	76 of 85 students	89 of 112 students	2.18	0.47 <sup>10</sup>	ns	+18	
Intentions for fighting (no intentions)	Grades 9–12	151/16	44 of 61 students	61 of 90 students	1.23	0.13 <sup>10</sup>	ns	+5	
<b>Average<sup>9</sup> for knowledge, attitudes, and values (Bacon, 2001a)</b>						0.35	ns	+14	
<b>Bacon, 2001b (quasi-experimental design)</b>									
Perceptions of social and resistance skills	Grades 9–12	201/11	4.07 (0.56)	3.73 (0.67)	0.34	0.56	Statistically significant	+21	
Perceptions of emotional competence	Grades 9–12	201/11	4.09 (0.52)	3.79 (0.59)	0.30	0.55	Statistically significant	+21	
Positive attitudes towards non-violence	Grades 9–12	201/11	3.97 (0.77)	3.55 (0.78)	0.42	0.54	Statistically significant	+21	
Perceptions of assertiveness/ efficacy skills	Grades 9–12	201/11	4.17 (0.72)	3.98 (0.73)	0.19	0.26	Statistically significant	+10	
Perceptions of parental negative attitudes towards substance use	Grades 9–12	201/11	3.76 (0.72)	3.33 (0.86)	0.43	0.55	ns	+21	

(continued)

## Appendix A3 Summary of study findings included in the rating for the knowledge, attitudes, & values domain<sup>1</sup> (continued)

Outcome measure <sup>3</sup>	Study sample	Sample size (students/schools) <sup>4</sup>	Author's findings from the study		WWC calculations			
			Mean outcome (standard deviation <sup>2</sup> )		Mean difference <sup>5</sup> (column 1–column 2)	Effect size <sup>6</sup>	Statistical significance <sup>7</sup> (at $\alpha = 0.05$ )	Improvement index <sup>8</sup>
			TGFDV group (column 1)	Comparison group (column 2)				
Intentions for marijuana (no intentions)	Grades 9–12	138/11	67 of 79 students	43 of 59 students	2.08	0.44 <sup>10</sup>	ns	+17
Intentions for fighting (no intentions)	Grades 9–12	129/11	65 of 77 students	37 of 52 students	2.20	0.47 <sup>10</sup>	ns	+18
<b>Average<sup>9</sup> for knowledge, attitudes, and values (Bacon, 2001b)</b>						0.48	Statistically significant	+18
<b>Domain average<sup>9</sup> for knowledge, attitudes, and values across studies</b>						0.42	na	+16

ns = not statistically significant

na = not applicable

1. This appendix reports overall findings considered for the effectiveness rating and the improvement index.
2. The standard deviation across all students in each group shows how dispersed the participants' outcomes are: a smaller standard deviation on a given measure would indicate that participants had more similar outcomes.
3. Bacon (2001a; 2001b) examined effects on students' intentions for drinking alcohol, but this outcome was not included in the review because of severe student attrition (above 50%). In addition, Bacon (2001a; 2001b) examined effects on students' attitudes toward drugs, students' perceptions of peer norms, students' perceptions of peer disapproval of substance use, students' perceptions of the harmful effects of drugs and alcohol, and students' intentions to smoke tobacco. The WWC examined the items that compose these five scales. While these items may be related to behavior, most of them are not relevant to character development. For further information about the scope of this review please see [Character Education Protocol](#).
4. The Bacon (2001a) study involved a random assignment of 20 classrooms to conditions (10 intervention, 10 comparison). Four of the intervention classrooms were dropped from the analysis because they implemented 12 or fewer lessons of the 14 suggested by the developer. The study author conducted an analysis of the remaining 16 classrooms (6 intervention, 10 comparison) and demonstrated that they were equivalent at baseline. So the exclusion of the four classrooms from the analysis was not considered a design flaw.
5. Positive differences and effect sizes favor the intervention group; negative differences and effect sizes favor the comparison group.
6. For an explanation of the effect size calculation, please see the [Technical Details of WWC-Conducted Computations](#).
7. Statistical significance is the probability that the difference between groups is a result of chance rather than a real difference between the groups. The level of statistical significance was calculated by the WWC and corrects for clustering within classrooms or schools and for multiple comparisons. For an explanation see the [WWC Tutorial on Mismatch](#). See the [Technical Details of WWC-Conducted Computations](#) for the formulas the WWC used to calculate statistical significance. In the case of the *Too Good for Drugs and Violence* program, corrections were needed for both clustering and multiple comparisons.
8. The improvement index represents the difference between the percentile rank of the average student in the intervention condition and that of the average student in the comparison condition. The improvement index can take on values between -50 and +50, with positive numbers denoting favorable results.
9. The WWC-computed average effect sizes for each study and for the domain across studies are simple averages rounded to two decimal places. The average improvement indices are calculated from the average effect sizes.
10. Effect size for this outcome measure was calibrated using the odds ratio formula. For an explanation, please see the [WWC Technical Working Paper on Effect Size](#).

## Appendix A4 Rating for the knowledge, attitudes, and values domain

The WWC rates interventions as positive, potentially positive, mixed, no discernible effects, potentially negative, or negative.<sup>1</sup>

For the outcome domain of knowledge, attitudes, and values, the WWC rated Too Good for Drugs and Violence™ as having positive effects. The remaining ratings (potentially positive effects, mixed effects, no discernible effects, potentially negative effects, and negative effects) were not considered, because Too Good for Drugs and Violence was assigned the highest applicable rating.

### Rating received

**Positive effects:** Strong evidence of a positive effect with no overriding contrary evidence.

- Criterion 1: Two or more studies showing statistically significant *positive* effects, at least one of which met WWC evidence standards for a strong design.

**Met.** *Too Good for Drugs and Violence* had two studies meeting WWC evidence standards. One of these studies was a randomized controlled trial. In one study, the average effect size was substantively important (at least 0.25), which the WWC considers a positive effect. Further, the WWC analysis found that two of the effects were statistically significant, also considered a positive effect.<sup>2</sup> In the second study, the average effect size was statistically significant, a positive effect. Further, the WWC analysis found that four of the effects were statistically significant.

- Criterion 2: No studies showing statistically significant or substantively important *negative* effects.

**Met.** The WWC analysis found no statistically significant or substantively important negative effects in this domain.

1. For rating purposes, the WWC considers the statistical significance of individual outcomes and the domain level effect. The WWC also considers the size of the domain level effect for ratings of potentially positive effects. See the [WWC Intervention Rating Scheme](#) for a complete description.

2. Although the study author reported four statistically significant effects, the WWC analysis confirmed the significance of only two of those findings. (See Appendix A3 for more details.)