What Works Clearinghouse

ies INSTITUTE OF EDUCATION SCIENCES

Too Good for Drugs™

Program description

Too Good for Drugs™ is designed to promote life skills, character values, resistance skills to negative peer influence, and resistance to the use of illegal drugs, alcohol, and tobacco. The program, which targets elementary and middle school students, is based on classroom discussions and structured activities that center on interactive learning and skill-building exercises. Students engage in role-play and cooperative learning games and are encouraged to apply the skills to different contexts. *Too Good for Drugs*™ also includes the optional elements of parental and community involvement. Two related programs are addressed in the intervention reports on *Too Good for Drugs and Violence* (high school) and *Too Good for Violence* (K–8).

Research

Two studies of *Too Good for Drugs*™ met the What Works Clearinghouse (WWC) evidence standards. These studies, which included nearly 2,500 students in grades 3, 4, and 6, attending 12 elementary and middle schools in Florida, examined results on students' behavior and knowledge, attitudes, and values.[1]

Effectiveness

Too Good for Drugs™ was found to have potentially positive effects on students' behavior and no discernible effects on students' knowledge, attitudes, and values.

	Behavior	*Knowledge, attitudes, and values*	*Academic achievement*
Rating of effectiveness	Potentially positive effects	No discernible effects	Not reported
Improvement index[2]	Average: +10 percentile points Range: 0 to +17 percentile points	Average: +7 percentile points Range: +3 to +11 percentile points	Not reported

1. The evidence presented in this report is based on the available research. Findings and conclusions may change as new research becomes available.
2. These numbers show the average and range of improvement indices for all findings across the two studies.

Research *(continued)*

outcomes for students in classes that did not use a character education curriculum.

The Bacon (2003) study investigated the program effects on elementary school students and included more than 1,100 third- and fourth-grade students attending six elementary schools in one school district in Florida. This study compared outcomes for students participating in a *Too Good for Drugs*™ curriculum with outcomes for students in classes that did not use a character education curriculum.

Effectiveness

Findings

The WWC review of character education addresses student outcomes in three domains: behavior; knowledge, attitudes, and values; and academic achievement.

Behavior. Bacon (2003) found statistically significant differences favoring the intervention group on all three subscales (personal and social skills, prosocial behavior, and inappropriate behavior) four months after the end of the program.[4] Although, as calculated by the WWC, none of these outcomes—individually or averaged—were found to be statistically significant the average effect size was large enough to be considered substantively important (at least 0.25).

Knowledge, attitudes, and values. Bacon (2000) reported statistically significant differences favoring the intervention group on three outcomes (resistance skills, prosocial peer group, and locus of control) four months after the end of the program. But none of these outcomes were found to be statistically significant as calculated by the WWC. The average effect size was neither statistically significant nor substantively important.

Bacon (2003) reported statistically significant differences in student perceptions favoring the intervention group on one of the five outcomes (goal setting and decisionmaking) four months after the end of the program. This effect was not found to be statistically significant as calculated by the WWC. The average effect size was neither statistically significant nor substantively important.

Rating of effectiveness

The WWC rates interventions as positive, potentially positive, mixed, no discernible effects, potentially negative, or negative. The rating of effectiveness takes into account four factors: the quality of the research design, the statistical significance of the findings (as calculated by the WWC), the size of the differences between participants in the intervention condition and the comparison condition, and the consistency of the findings across studies (see the WWC Intervention Rating Scheme).

The WWC found *Too Good for Drugs™* to have potentially positive effects on behavior and no discernible effects on knowledge, attitudes, and values

Improvement index

For each outcome domain, the WWC computed an improvement index based on the average effect size (see the Technical Details of WWC-Conducted Computations). The improvement index represents the difference between the percentile rank of the average student in the intervention condition versus the percentile rank of the average student in the comparison condition. Unlike the rating of effectiveness, the improvement index is entirely based on the size of the effect, regardless of the statistical significance of the effect, the study design, or analysis. The improvement index can take on values between –50 and +50, with positive numbers denoting favorable results. The average improvement index for behavior is +10 percentile points, with a range of 0 to +17 percentile points across findings. The average improvement index for knowledge, attitudes, and values is +7 percentile points, with a range of +3 to +11 percentile points across findings.

4. The level of statistical significance was calculated by the WWC and, where necessary, 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 the statistical significance. In the case of the *Too Good for Drugs*™ report, corrections for clustering and multiple comparisons were needed.

Appendix A2.1 Outcome measures in the behavior domain

Outcome measure	Description
The Teacher Checklist of Student Behavior (TCSB): personal and social skills	This scale, developed by the study author, consists of 11 items assessing students' emotional behavior and interpersonal interactions with peers. The checklist was completed for each student individually (as cited in Bacon, 2003).
The Teacher Checklist of Student Behavior (TCSB): prosocial behaviors	This scale, developed by the study author, consists of six items assessing students' helping, respectful, and emphatic behavior with peers. The checklist was completed for each student individually (as cited in Bacon, 2003).
The Teacher Checklist of Student Behavior (TCSB): inappropriate behaviors	This scale, developed by the study author, consists of six items assessing students' aggressive and disruptive behavior. The checklist was completed for each student individually (as cited in Bacon, 2003).

Appendix A2.2 Outcome measures in the knowledge, attitudes, and values domain

Outcome measure	Description
Intentions for drinking	One survey item on which students indicate if they intend to drink alcohol anytime during the next year (as cited in Bacon, 2000).
Intention for marijuana	One survey item on which students indicate if they intend to use marijuana anytime during the next year (as cited in Bacon, 2000).
Perceptions of social and resistance skills	A 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, 2000; Bacon, 2003).
Prosocial peers	A scale composed by the study author for the purpose of this study to assess perceptions of prosocial peer behaviors (as cited in Bacon, 2000).
Locus of control	A scale composed by the study author for the purpose of this study to assess perceptions of locus of control related to being able to avoid drinking, fighting, and drug use (as cited in Bacon, 2000).
Perceptions of emotional competency skills	A six-item scale developed by the study author on which students indicated if they felt confident in their ability to manage their behavior and emotions and to successfully plan for personal goals (as cited in Bacon, 2003).
Perceptions of goal setting and decisionmaking skills	A seven-item scale developed by the study author on which students indicated if they managed their actions by setting goals and creating plans to reach these goals (as cited by Bacon, 2003).

Appendix A3.2 Summary of study findings included in the rating for the knowledge, attitudes, and values domain[1] *(continued)*

this review. For further information about the scope of this review, please see the Character Education Protocol.

4. The WWC requested and received from the study author sample sizes for the analysis sample of students for all variables in Bacon (2000) because they were not reported in the study paper.
5. The WWC received confirmation from the study author that the analysis for pretest equivalence is based on the analysis sample rather than the intent-to-treat sample. This analysis addresses concerns about sample attrition that otherwise might affect findings.
6. Positive differences and effect sizes favor the intervention group; negative differences and effect sizes favor the comparison group. The numbers in the mean difference column for the intentions for drinking and marijuana use represent the odds ratio (ratio between the proportions of the intervention group and comparison group) used to calculate effect size.
7. For an explanation of the effect size calculation, please see the Technical Details of WWC-Conducted Computations.
8. Statistical significance is the probability that the difference between groups is the result of chance rather than a real difference between the groups. The level of statistical significance was calculated by the WWC and, where necessary, 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 the statistical significance. In the case of the *Too Good for Drugs™* report, corrections for clustering and multiple comparisons were needed.
9. 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.
10. Effect size for this outcome measure was calculated using the odds ratio formula, please see the Technical Details of WWC-Conducted Computations.
11. 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.
12. In both studies reviewed for *Too Good for Drugs™* Bacon reported statistically significant positive findings for several student outcomes, but after correcting for clustering and multiple comparisons the WWC found that the differences between the groups were not statistically significant.

Appendix A4.2 Summary of end-of-program study findings for the knowledge, attitudes, and values domain[1] *(continued)*

8. Statistical significance is the probability that the difference between groups is the result of chance rather than a real difference between the groups. The level of statistical significance was calculated by the WWC and where necessary, corrects for clustering within classrooms or schools. For an explanation, see the WWC Tutorial on Mismatch. See the Technicals Details of WWC-Conduct Computations for the formulas the WWC used to calculate the statistical significance. In the case of the *Too Good for Drugs™* report, a correction for clustering was needed.
9. 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.

Appendix A5.2 Rating for the knowledge, attitudes, and values domain

The WWC rates interventions as positive, potentially positive, mixed, no discernible effects, potentially negative, or negative.[1]

For the outcome domain of knowledge, attitudes, and values, the WWC rated *Too Good for Drugs*™ as having no discernible effects. It did not meet the criteria for other ratings (positive effects, potentially positive effects, mixed effects, potentially negative effects, and negative effects) because none of the studies showed statistically significant or substantively important effects.

Rating received

No discernible effects: No affirmative evidence of effects.

- Criterion 1: None of the studies shows a statistically significant or substantively important effect, either positive or negative.

  Met. *Too Good for Drugs*™ had two studies meeting WWC evidence standards. Neither study showed a statistically significant or substantively important effect.

Other ratings considered

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.

  Not met. *Too Good for Drugs*™ had two studies meeting WWC evidence standards, both of which met standards for strong design. But neither study showed a statistically significant positive effect.

- 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.

Potentially positive effects: Evidence of a positive effect with no overriding contrary evidence.

- Criterion 1: At least one study showing a statistically significant or substantively important *positive* effect, thus qualifying as a *positive* effect.

  Not met. The WWC analysis found no statistically significant or substantively important positive effects in this domain.

- Criterion 2: No studies showing a statistically significant or substantively important *negative* effect. Fewer or the same number of studies showing *indeterminate* effects than the number showing statistically significant or substantively important *positive* effects.

  Not met. The WWC analysis found no statistically significant or substantively important negative effects in this domain. But, while both studies showed indeterminate effects, neither showed statistically significant or substantively important positive effects in this domain.

Mixed effects: Evidence of inconsistant effects as demonstrated through EITHER of the following.

- Criterion 1: At least one study showing a statistically significant or substantively important *positive* effect. At least one study showing a statistically significant or substantively important *negative* effect, but no more such studies than the number showing a statistically significant or substantively important *positive* effect.

  Not met. No studies showing statistically significant or substantively important effects in this domain.

OR

- Criterion 2: At least one study showing a statistically significant or substantively important effect AND more studies showing an *indeterminate* effect than showing a statistically significant or substantively important effect.

Appendix A5.2 Rating for the knowledge, attitudes, and values domain *(continued)*

Not met. No studies sharing a statistically significant or substantively important effect in this domain.

Potentially negative effects: Evidence of a negative effect with no overriding contrary evidence.

- Criterion 1: At least one study showing a statistically significant or substantively important *negative* effect.

  Not met. No studies showing a statistically significant or substantively important negative effect in this domain.

- Criterion 2: No studies showing a statistically significant or substantively important *positive* effect, OR more studies showing statistically significant or substantively important *negative* effects than showing statistically significant or substantively important *positive* effects.

  Met. No studies showing a statistically significant or substantively important positive effect in this domain.

Negative effects: Strong evidence of a negative effect with no overriding contrary evidence.

- Criterion 1: Two or more studies showing statistically significant *negative* effects, at least one of which is based on a strong design.

  Not met. The WWC analysis found no statistically significant negative effects in this domain.

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

  Met. The WWC analysis found no statistically significant or substantively important positive 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.