

Running Head: IMPACT OF DRUG PREVENTION

Technical Report:
One Year Study of the Effects of the *Too Good for Drugs*
Prevention Program on Middle School Students

March 2013

Tina P. Bacon

Saint Petersburg, Florida

Bruce W. Hall

University of South Florida

John M. Ferron

University of South Florida

Key Words: Drug Prevention, Risk Level, Risk and Protective Factors, Social and Emotional Learning, Middle School

Author Note

This research was supported by the C. E. Mendez Foundation, Inc., with the collaboration of professionals from one of the state of Florida's and nation's largest school districts. The authors express their appreciation to the teachers, site administrators, and district administrators whose cooperation made this study possible. Funding to support instructional services and student materials during the 2009-2010 school year was provided by a grant from the Florida Department of Children and Families and a local city's Community Development Block grant.

TINA P. BACON, is a research and evaluation consultant, 5650 Leeland Street South, Saint Petersburg, FL 33715; e-mail tbacon@tampabay.rr.com.

BRUCE W. HALL is the former chair of the Department of Educational Measurement and Research, and Professor Emeritus, College of Education, University of South Florida, 4202 E. Fowler Avenue, EDU 357, Tampa, FL 33620; e-mail bwhall@tampabay.rr.com.

JOHN M. FERRON, is a Professor for the Department of Educational Measurement and Research, College of Education, University of South Florida, 4202 E. Fowler Avenue, EDU 369, Tampa, FL 33620; ferron@tempest.coedu.usf.edu.

Abstract

Too Good for Drugs (TGFD) is a school-based prevention program designed 1) to prevent or diminish cigarette smoking, alcohol consumption and marijuana use among middle school children, and 2) to reduce risk factors and enhance protective factors that strengthen resiliency in middle school adolescents related to alcohol, tobacco and other drug (ATOD) use. To examine the program's effectiveness and to determine if the program's impact is moderated by student risk level, a randomized trial study was implemented with an ethnically mixed sample of 6th graders from a large school district containing urban, suburban and rural areas.

Study Design and Implementation

The evaluation study used a stratified randomized treatment-control group design, whereby 40 middle schools were paired on the basis of key school demographics, then randomly assigned to either treatment or control conditions. The students in the 20 treatment schools and 20 control schools were surveyed in their classrooms on an identical schedule: prior to the delivery of treatment, after the delivery of treatment, and six months following treatment. At each assessment point, all participating students completed the *Student Behavior and Risk and Protective Factor Survey* (SBRPFS) which contains items modeled after those of established ATOD measures. The SBRPFS dealt with student ATOD substance use (cigarette, alcohol and marijuana use) within the past 30 days and past year, and student status with respect to key risk and protective (R&P) factors associated with resiliency to ATOD use (intent to use ATOD, goal setting and decision making skills, bonding with prosocial peers, social and peer resistance skills, emotional competency/self-efficacy, awareness of harmful effects of drugs, and attitudes toward drug use). Three levels of student risk were identified based on those reporting that at age 10 or younger they had tried 1) none of the three ATOD substances of cigarettes, alcohol and

marijuana (low risk), 2) one of the three substances (moderate risk), and 3) two or more of the three substances (high risk).

In the 20 treatment schools, the 10-lesson TGFD program was delivered by TGFD instructors trained by staff from the C. E. Mendez Foundation. During the delivery, the fidelity of program implementation was monitored through unannounced in-class observations. Implementation data were also collected from the TGFD instructors themselves, as well as from the 6th grade teachers in whose classrooms the instruction was delivered.

To maximize the quality of the survey responses across the 20 treatment and 20 control schools, the evaluation team trained all survey administrators. Survey administrators followed a prepared script, and were observed in all treatment and control schools by the team during the administration of the survey.

Results on Major Outcomes

Across the three survey periods (pre-survey, post-survey, 6-month follow-up) the treatment and control groups remained highly similar to one another with respect to composition by gender, ethnicity, free or reduced lunch program, limited English proficiency services, and exceptional education services. The pre-survey sample included 10,762 students, the post-survey 10,513 students, and the 6-month survey 10,163 students.

Student survey responses were analyzed using a multilevel model estimated by restricted maximum likelihood using the MIXED PROCEDURE in SAS. Results were reported in terms of probability values and standardized effect size (ES). Post-survey results show the TGFD treatment, in comparison to the control, to be effective in diminishing reported 30-day smoking use, alcohol consumption, binge drinking and marijuana use among high risk 6th graders, and in impacting all seven R&P factors to boost these high risk students' resiliency related to drug use. The post-survey ESs for the four 30-day usage outcomes (.56 to 1.03) and the seven R&P factors

(.33 to .76) evidence a short-term impact of the treatment for high risk students that was broad and substantive. The positive effects, though attenuated by time, were still present six months after treatment for the high risk students on all of the 30-day usage outcomes (ESs of .30 to .65) and on five of the seven R&P outcomes (intent to use ATOD, peer resistance, bonding with prosocial peers, harmful effects of drugs, and ATOD attitudes) with ESs of .30 to .63. Also, students' reported use of cigarettes, alcohol and marijuana over the past year showed a diminution favoring the treatment high risk students (ESs of .26 to .57).

The results show that the TGFD treatment had some impact on the low and moderate risk students, but the effects, in comparison to those for high risk students, were more limited in both scope and time. For moderate risk students, the post-survey produced significant treatment results (ESs of .14 to .19) on three of the 30-day ATOD usage outcomes (drinking, binge drinking, and marijuana use), as well as on two of the R&P factors: peer resistance (ES = .31) and self-efficacy (ES = .19). However, these effects did not carry over to six months later. Nor were there any significant effects on moderate risk students' reported ATOD use over the past year. For low risk students, the post-survey produced no significant treatment effects on the ATOD usage outcomes, but did produce significant effects for three of the R&P outcomes: goals and decisions (ES = .20), peer resistance (ES = .23), and self-efficacy (ES = .23). The effects on peer resistance (ES = .17) and self-efficacy (ES = .15) carried over to six months later.

All of the effects that were produced on the post-survey and 6-month follow-up survey favor the treatment students, such that the results show a general *suppression* effect on students' reported ATOD usage, and a general *strengthening* effect on those R&P factors that are considered important in promoting adolescents' resilience to inappropriate drug use. These findings underscore the efficaciousness of the TGFD treatment as a 6th grade intervention, especially for students identified as being at high risk for early experimentation with drugs. The

evidence also suggests that the treatment effects, though attenuated, extend across time for these high risk students to a point six months after treatment.

Finally, an examination of the TGFD treatment in relation to school achievement found an effect between the treatment/control conditions at the lower levels of prior achievement and subsequent student performance on the Florida Comprehensive Assessment Test (FCAT) Mathematics. Specifically, treatment 6th graders with low and below average 5th grade FCAT Mathematics scores performed better on 6th grade FCAT Mathematics as compared to their counterparts among control students.

Fidelity Results

The findings of the study are given substance by the fact that SBRPFS was found to have acceptable estimates of internal consistency reliability and test-retest reliability, and all of its subcomponents showed evidence of concurrent validity in relation to popular drug usage and R&P instruments. Also, an investigation of internal factor structure on the R&P items showed that the items of six of the seven R&P subscales loaded in a manner consistent with a meaningful interpretation of those subscales. The unannounced on-site observations gathered on the survey process found that the survey instrument was appropriately administered throughout both treatment and control classrooms. Data on fidelity of implementation of the TGFD lessons gathered from on-site observers, from the TGFD teachers themselves, and from the regular classroom teachers provide collaborative evidence that the TGFD treatment was delivered with consistent quality and completeness, and in such a way that actively and successfully engaged the participating students.