Center for Social Development

GEORGE WARREN BROWN SCHOOL OF SOCIAL WORK

# Assessing the Impacts of Service Learning on Middle School Students: Wyman's Teen Outreach Program®

## 2012-2013 Academic Year Report


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# Assessing the Impacts of Service Learning on Middle School Students: Wyman's Teen Outreach Program®

*The Wyman Center's Teen Outreach Program® (TOP®) is a service learning intervention that promotes positive youth development. This quasi-experimental research assessed the impacts of TOP when integrated into a middle school's 7th grade social studies curriculum via pre and post-test surveys with students. When compared to students at a comparison school that did not receive the intervention, the TOP students report statistically significant gains in their academic performance. Those TOP students deemed most at-risk for academic and behavioral issues also report statistically significant gains in their academic performance as well as their civic and social connectedness. As a longitudinal, mixed-method study, additional analyses and reports are forthcoming. These data are suggestive of positive impacts on the students who most need the intervention, supporting a strategy of universal implementation.*

## Introduction and Background

Early adolescence has widely been described as a tumultuous time for youth. Youth compete with the large task of navigating social networks, heightened expectations of autonomy, and increasingly abstract school subjects while managing the stress and confusion that results from the physical metamorphosis of puberty (Serbin, Stack, & Kingdon, 2013). Though the difficulties of adolescence abound, a mounting body of empirical studies suggest that well-designed, well-implemented, school-based prevention and youth development initiatives can influence a diverse array of social, health and academic outcomes (Greenberg, Weissberg, O'Brien, Zins, Fredericks, Resnik, & Elias, 2003). In fact, research suggests that social and emotional skills such as self-regulation, responsible decision-making and goal-setting can enhance educational efforts aimed at improving academic abilities (Lawrence Aber, Searle Grannis, Owen, & Sawhill, 2013). This calls for careful examination of interventions that can achieve these social-emotional outcomes. The following presents one such intervention and its associated research.

The Wyman Center's Teen Outreach Program® (TOP®) is a service learning program that promotes the six principles of Positive Youth Development (PYD), including Competence, Confidence, Connection, Character, Caring and Contribution (Catalano, Berglund, Ryan, Lonczak, & Hawkins, 2002; Lerner, Lerner, Almerigi, Theokas, Phelps, Gestsdottir, Naudeau, Jelicic, Alberts, Ma, Smith, Bobek, Richman-Raphael, Simpson, Christiansen, & Von Eye, 2005 ). PYD programs build upon work conducted by Erikson, Ainsworth, and others who identify that positive youth settings offer opportunities for pro-social interactions and foster characteristics such as responsibility, mutual respect, cooperation, future orientation, and positive self-identity (Catalano, et.al. 2002; Kia-Keating, Dowdy, Morgan, & Noam, 2010; McBride, Johnson, Olate, & O'Hara, 2011). Some research suggests that these types of social and behavioral outcomes may be helpful for engaging and keeping students in school (Bird & Markle, 2012).

TOP is a school-based intervention delivered by teachers, guidance personnel or trained facilitators, to 7th7th to 12th grade students. The program links supervised volunteer service (minimum 20 hours per year) to classroom discussion, curriculum, and activities (minimum 1 hour per week)

through service learning pedagogy. The program focuses on maximizing learning from the service experiences, helping teens cope with important developmental tasks, and addresses key social and developmental tasks, such as understanding oneself, one's values, human growth and development, life skills, dealing with family stress, and social and emotional transitions from adolescence to adulthood (Gavin, Catalano, David-Ferdon, Gloppen, & Markham, 2010; Zins, Bloodworth, Weissberg, & Walberg, 2007). Though TOP has been implemented in a variety of after-school and community-based settings and extensive studies have examined the effect of TOP for both middle and high school adolescents, less is known about its effectiveness when the program is integrated into middle school curricula.

This report outlines the 2012-2013 results of the survey measures administered for the in-school implementation of Wyman's Teen Outreach Program (TOP) for 7th7th grade students attending an urban middle school in the Midwest (for the purpose of this report, it will be called the "intervention school" or MS-1). Other data collected which will be documented in a subsequent report include results from administrator, teacher and TOP facilitator interviews, student and parent reflection groups, observations of the classroom TOP interventions. For the survey dataset changes in student ratings of social, emotional, behavioral, and civic attitudes for MS-1 students were compared to 7th grade students from a neighboring middle school in the same town (to be referred to as the "comparison school" or MS-2), who did not receive Wyman's TOP intervention within their curricula. Results on academic behaviors such as failing courses, cutting class and suspensions suggest that students who were exposed to TOP programming in their middle school curricula were more likely to experience significant decreases in some of these behaviors. A subset of students who were considered the most vulnerable were also examined. Results from this "at-risk" subset displayed improvements in behavioral outcomes as well as areas of civic engagement and neighborhood connections. General results and possible factors that may have impacted the results are discussed and implications are outlined.

## Methods

Wyman's Teen Outreach Program (TOP) is a youth development program with a community service learning component that has been embedded into the required curriculum for all 7th grade students at the intervention school since 2011. In the initial implementation of TOP for the 2011-2013 academic year, TOP was implemented in the intervention school through its communication arts classes for all 7th grade students. In the academic year that is examined by this report, the 2012-2013 TOP curricula were embedded within 7th grade social studies classes.

The implementation of Wyman's TOP in the intervention school adheres to required fidelity components for the program model. Such elements include a weekly, 45-60 minute lesson led by a group facilitator. In the intervention school, these facilitators were masters level social work students facilitating as a for-credit practicum towards their degree and/or for pay. These lessons were conducted within a normal classroom setting at varying times during the school day. Each classroom implementing TOP was comprised of students who made up a "TOP club." Students in a TOP club generally stayed together in the same club for the course of the school year, an intentional component of TOP to build deeper peer relationships. Lessons included facilitator-led group discussions on topics such as making good decisions, understanding and learning how to build healthy relationships, the importance of communication, media literacy and topics of social and physical development. Beyond group lessons, another critical component of Wyman's TOP program

included 20 hours of community service learning activities completed through the TOP club. These projects were designed to engage students in active participation, planning, execution and evaluation of their service learning activities. Overall, students in the intervention school participated in an average of 21.28 hours of community service (SD = 2.89). The mean number of TOP clubs that a student in the intervention school included approximately 31 meetings (Mean = 31.04, SD = 4.22), satisfying the fidelity requirements of Wyman's Teen Outreach Program.

7th grade students at the comparison school did not receive any intervention that would simulate a TOP experience. Instead, students participated in "business as usual." Components that would simulate the TOP curricula were not structured into the school day as it was with the intervention school. Additionally, unlike the intervention school, the entire grade level was not required to participate in any component of community service learning during the year examined.

To examine the effects of TOP, both groups of 7th graders at the intervention and comparison schools took a pre-test and a post-test with measures identified with SEL constructs of self-awareness, self-management, social awareness, relationship skills, responsible decision-making, academic success factors, and community service and civic engagement. Surveys were administered at the beginning of the year and end of the year to gauge any self-reported changes in their levels on social (social skills, sense of belonging at school, neighborhood and community social connections), civic (civic engagement, civic duties and participation), and academic outcomes (self-efficacy, self-control, future educational goals, autonomy, level of emotional or behavioral engagement, ratings of parental engagement). Additionally, negative academic behaviors (failing grades/courses) and social behaviors (skipping class, getting suspended, causing or becoming pregnant, and having/fathering a baby) were tracked.

## Results

A total of 218 students participated in this study. One hundred and twelve students who received TOP in the intervention school, also had signed parental consent forms and thus participated in both the pre- and post-test for this study (though all students in the 7th grade participated in TOP programming). In the comparison school, 106 7th grade students participated in this study. These numbers represent approximately 1/2 of the entire 7th grade class for each school.

### Description of students

The two groups of students from the intervention and comparison schools did not differ significantly in regard to their demographics. Both samples from each school were mostly female (intervention school: 56.3%, comparison school: 60.4%) and African American (intervention school: 85% and comparison school: 95%) (See Appendix, Table 1). Additionally, both groups of students were similar in regard to the types of households in which they resided. About half of students in both schools lived in two-parent households (intervention school: 59.2%, comparison school: 52.9%) and the rest lived mostly in single-parent households (intervention school: 32%, comparison school: 37.5%).

There were significant differences between the students in the intervention and comparison schools in regards to the level of their mother's education. Intervention school students were much more likely to have mothers who had some college experience or more (81.5%) compared to the

comparison school students (63.4%). Additionally, students from the intervention school reported their fathers had some college experience or more (68.18%) at higher rates than their comparison school counterparts (41.8%). Though statistically significant, almost 30% of the data is missing for mother's education and 50% of the data is missing for father's education (See Appendix, Table 1).

**Academic performance**

Although parental consent was provided for obtaining student academic records, at the time of this writing, information for the full sample of students in the study was not available. These components will be incorporated in a later report. The following represents a self-report of academic behavioral measures obtained from the pre- and post-tests.

*Failing grades*

Though the differences between students in the intervention and comparison schools who had failing grades in the pre-test were not significantly different, by post-test, students who participated in TOP at the intervention school were much less likely to report failing grades, even when controlling for parent's (mother and father) education, household structure and gender. According to self-reports of failing grades for both groups of 7th graders by school, students from the intervention school were 83% less likely to report failing grades at the end of the intervention year than those who attended the comparison school.

*Suspensions*

Similarly, though the differences between students reporting suspensions at the pre-test were not significantly different by school, at the end of the intervention year, there were significant differences in suspensions by school when controlling for parent's education, household structure and gender. Students in the intervention school were 69% less likely to report having suspensions when compared to students at the comparison school.

*Cutting class*

Similar to the above outcomes, there were no differences between students reporting that they cut class in the previous year by school. At the end of the intervention, however, students from the intervention school were much less likely to cut class than students from the comparison school, even while controlling for various individual-level factors. According to students' self-reports for cutting class, students in the intervention school were 72% less likely to cut class than students from the comparison school.

*Other outcomes*

Reports of failing courses were also analyzed, but there were no significant differences between students in the intervention and comparison school for these two outcomes. Sample sizes for the outcome variables measuring whether students caused/became pregnant and had/fathered a baby were not large enough for statistical analyses.

## Social, emotional, and civic attitudes

Overall, 7th grade students in the intervention school did not have significantly different gains on various self-reported scales included in both the pre and post-tests when compared to students in the comparison school. In fact, when compared only to themselves, there were significant differences between the pre and post-tests, however the significant differences suggested that students actually scored lower on various topics in the post-test than they did in the pre-test. Though these differences are interesting, they are not unlike the pattern of scores that the students from the comparison school attained, suggesting that 7th grade students in general score themselves lower on various constructs throughout the year. The two areas where students from the intervention school were significantly different from students in the comparison group were areas of emotional engagement and academic efficacy.

*Emotional engagement*

Emotional engagement in school is important for learning and mastering new concepts and improving school climate. Items on the emotional engagement scale includes questions asking students whether they thought classes were fun, enjoyed learning new things in their classes, felt interested while working on something in class, and how they rate themselves in regards to their work ethic in class. There were a total of 25 points possible for this scale with higher ranked items indicating more agreement with statements regarding a student's emotional engagement in school. At pre-test the mean score for students in the intervention school was 18.54 and dropped about 2 points at post-test to 16.16. Students from the comparison school only dropped about one point from 17.20 in the pre-test to 16.42 in the post-test (See Appendix, Table 1). These scores suggest that students from the intervention school agreed less with the emotional engagement scale in the post-test than they did in the pre-test when compared with their peers in the comparison school.

*Academic efficacy*

Academic efficacy scales referred to students' self-ratings on questions that gauge student's beliefs on their ability complete and learn difficult school work, master the skills taught in school and their ability to discern and solve difficult concepts. The highest score an individual could get on this scale is 25 points, with higher values indicating more agreement with the questions being asked. Overall, the scores in both pre and post tests were high for both schools (See Appendix, Table 1). Though both students from the intervention school and the comparison school scored lower in the post-test than the pre-test, the drop in scores between pre and post-tests for the students in the TOP intervention school (-.26) was not as large as it was for students in the comparison school (-1.36).

## Academic performance for the at-risk subsample

Following previous research on TOP (Allen & Philliber, 2001), we examined the differences between pre and post-test scores of students who could be considered "at risk" of future difficulties in school. Students who indicated in the pre-test that they had either failed a course, obtained failing grades, received at least one suspension, skipped school, became or caused a pregnancy, or had or fathered a baby were considered "at-risk" (Appendix, Table 3). These students made up nearly half of each school sample. Sixty-six students from the comparison school and 65 students from the intervention school qualified for inclusion into the "at risk" sample. These "at-risk" students were

not statistically different from one another in regards to gender, race, mom's education or household composition. The only significant difference between the students from each school was in the category of father's education[1], with students in the comparison school indicating less educated fathers than their peers in the intervention school. See Appendix, Table 4 for a breakdown of the behaviors by students considered "at-risk" by school.

*Failing grades*

Similar to the full sample, at-risk students in the intervention school were significantly less likely to report failing grades at the post-test than their counterparts in the comparison school, even when controlling for gender, parent's education and household composition. There was no statistically significant difference between at-risk students in both schools for failing grades in the pre-test. However, by post-test, students from the intervention school were almost 75% less likely to report failing grades than students at the comparison school.

*Suspensions*

The sample of at-risk students from the intervention school were significantly less likely to report suspensions at the post-test than their comparison school at-risk student counterparts, even when controlling for gender, parent's education and household composition. Though there were no statistically significant differences between suspensions for at-risk students by school in the pre-test, students who participated in TOP in the intervention school that were considered at-risk were 71% less likely to get suspended in the post-test compared to at-risk students in the comparison school.

*Other outcomes*

Cutting class and reporting failing courses were also analyzed for the at-risk sample but there were no significant differences between students from both schools for these two outcomes. Sample sizes for the outcome variables measuring whether students caused/became pregnant and had/fathered a baby were not large enough for statistical analyses.

**Social, emotional, and civic attitudes for a subsample of students**

Analysis on the sub-sample of at-risk students (N = 128) indicates that there are significant differences between students in the intervention and comparison schools in two areas: Civic Engagement and Neighborhood/Social Connections.

*Civic engagement*

This scale (2-8 point range) asked students to rate their agreement with whether they do interesting activities and if they are able to help decide activities or rules in class. Whereas at-risk students who did not receive the TOP intervention at the comparison school decreased in their agreement with this scale (pre to post-test difference = -.35), at-risk students in the intervention school indicated higher agreement with this question from pre- to post-test at a mean point increase of .24 (Appendix, Table 5).

[11] Please note that over 30% of the data were missing for this item.

*Neighborhood/social connections*

This scale (3-15 point range) asked students to rate their agreement with whether adults in their community listen to their voices; if they believed there are people in their neighborhood who care about them; and whether they think their neighbors might intervene if they were seen doing something wrong. The students from the intervention school who were also at-risk scored higher on their post-test than their pre-test with a mean gain of .60 points. This mean difference is significantly different from at-risk students from the comparison school who actually decreased their rating of this scale by an average of -.90 points. These differences suggest that those who are the most at-risk of academic failure are more likely to feel connected to their community after going through one year of Wyman's TOP.

## Discussion

Overall, the survey data from the 2012-2013 academic year suggests that participation in Wyman's Teen Outreach Program is associated with improved academic performance. Additionally, at-risk students participating in TOP also reported increased civic and social connectedness as well as improved academic performance. While this research is not an experimental design, thus limiting causal inference, these findings are important for further consideration.

This stage of youth development is important because middle school may be a critical period for students' development of positive views of their academic futures (Heller, Calderon, & Medrich, 2003; Robertson, 1997; Roeser, Eccles, & Sameroff, 1998; Ryan, 2001; Wentzel & McNamara, 1999). Some research suggests that it is not unusual for students' sense of school achievement to drop from the start of 7th grade to the start of 8th grade, raising concerns about youth beginning to disengage from school during this developmental year (Ryan, 2001; Roeser et. al, 1998). It is encouraging that those participating in TOP did not report these declines.

At-risk students reported stronger civic outcomes when receiving Wyman's TOP than their counterparts who did not go through the program. Interventions that are delivered to an entire grade level of students, regardless of risk or need, is an example of a universal or primary prevention effort. In the context of this study, TOP was delivered as a universal prevention effort at the intervention school with every 7th grade student receiving TOP. It did not matter whether a student was academically advanced and had never been referred for a disciplinary incident or if a student had previous history of failing grades and redirected behaviors. The intent of the intervention's design was that every student, regardless of risk would be "inoculated" with the TOP intervention. This inclusion of all students, regardless of prior history of need, probably contributed to what can best be described by the "prevention paradox".

The prevention paradox is a theory developed by Geoffrey Rose (Rose, 1985), which suggests that large numbers of people must participate in a preventative strategy for direct benefit to relatively few. These observations have been widely witnessed in public health studies which note that universal interventions will not necessarily work to reduce or increase the desired behaviors or attitudes for the entire group of people who receive an intervention. Instead, a sub-set of individuals who are the most at-risk may achieve the desired gains. Under this logic, universal interventions may not necessarily demonstrate gains for each individual student. Instead, such interventions can

provide enough momentum through positive behavioral changes to a select group of students, whose changes in attitudes and behaviors may then contribute to positive changes in the entire school climate.

Moreover, these positive changes to the small group of students who are the most in need can lead to what has been called a "tipping point" or the point at which small incremental changes can determine the ultimate end state of a system. The data from the 2012-2013 implementation of TOP, therefore, supports what other researchers have found in similar universal intervention efforts. Additional analyses of the gains for our sample of students who were most at-risk and how these changes may impact school culture overall are necessary in future studies.

## Limitations

*Participation rates*

Various efforts were made by the research team in collaboration with the school administration and Wyman program personnel to recruit and obtain parental consents for all students. Only about half of students from each school, however, turned in the parental consent forms to participate in this study. Given that only half of the total possible students participated, questions in regard to the differences between participating and non-participating students arise. It is unclear whether those who did not participate were less likely to do so because their parents objected or because they represent students who are already disengaged. This issue of low participation may be inherent at the intervention school, in particular, as there are other researchers concurrently conducting studies with students in this school. Therefore, rates of participation may by hindered by research fatigue.

*Missing data*

As with many school-related intervention studies, missing data and attrition is a common issue. Students may not have completed data because the tests were given on a day they were sick, in support services, or because they moved out or into the school. In this study, students who did not answer both the pre- and the post-tests were dropped from the analysis. These cases represent about 10-15% of our sample.

*Development*

Some studies suggest that cognitive and social development in some of the constructs that we measured (social, academic, civic attitudes) may not be readily apparent but appear over time. The follow-up period for these students was completed within one academic year (or nine months). However, changes in these processes should be examined again at the half-year and one-year post-program time periods to gauge any changes from the students in the intervention and comparison schools. This concept was true in the studies on preschool students in the Perry Preschool Project and the Abecedarian Project. Initial results showed few gains from attending such schools, however longitudinal studies that followed students into adulthood found large impacts on income, marital status, criminal activity and a myriad of other outcomes (Heckman, 2008).

*School climate*

There are a variety of factor outside of our control that may have influenced students in this study. Environmental factors were not controlled, so any events that occurred at the respective schools could have hindered or helped in ways that we did not forecast. For students in the comparison school that did not receive the TOP intervention, the academic year that was studied represents the last year before the school system lost accreditation. There may have been internal administrative influences affecting the students in a way that is not typical for their normal day-to-day teaching and/or operations. Students in the intervention school, on the other hand, may have been influenced by the many other types of initiatives that are being implemented within their school—such things as Positive Behavioral Instruction Supports (PBIS), Community School initiatives, extracurricular activities, and other outside events could have influenced the student outcomes of this study.

**Future implementation and research**

A larger sample of students would provide more statistical power to detect any differences that were not seen in this academic year of study. Further analyses should be conducted once academic grades and disciplinary data are received to examine the link between at-risk students' participation in TOP and their behavioral outcomes over the course of the year. Lastly, future research questions should explore the gains and outcomes of students who were considered the most "at risk" both shortly after the intervention and further into their adolescent development.

## Conclusion

This report summarizes survey data that compares 7th grade students who obtained Wyman's TOP within middle school curricula and those who did not at a nearby comparison school. Results suggest that overall, for students who had Wyman's TOP embedded into the curricula, there were significant decreases in failing grades, suspensions, and cutting classes. Students who were considered "at-risk" for negative behaviors and academic difficulties, however, experienced the most benefits of the intervention. These students gained increases in their levels of civic and social connectedness as well as self-reported academic performance. Future research and analysis of qualitative data associated with the study will help complete the picture of changes that occur for students and schools who participate in TOP.

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## Appendix

Table 1. Description of Students by School

| | Comparison School | | Intervention School | |
|---|---|---|---|---|
| | **N** | **%** | **N** | **%** |
| | 106 | 100 | 112 | 100 |
| **Gender** | | | | |
| Males | 42 | 39.6 | 49 | 43.8 |
| Females | 64 | 60.4 | 63 | 56.3 |
| **Race** | | | | |
| African American | 95 | 91.4 | 82 | 78.9 |
| White | 1 | 1.0 | 9 | 8.7 |
| Hispanic/Latino | - | - | 1 | 1.0 |
| Asian or Pacific Islander | - | - | - | - |
| Multiethnic | 4 | 3.9 | 5 | 4.8 |
| Native American/Alaskan Native | 1 | 1.0 | 1 | 1.0 |
| Other | 2 | 1.9 | 6 | 5.8 |
| **Mom's Education** | | | | |
| High School Diploma or Less | 26 | 36.6* | 16 | 18.4* |
| Some College or More | 45 | 63.4* | 71 | 81.6* |
| **Dad's Education** | | | | |
| High School Diploma or Less | 32 | 58.2* | 21 | 31.8* |
| Some College or More | 23 | 41.8* | 45 | 68.2* |
| **Household Family Composition** | | | | |
| Two-parent | 55 | 52.9 | 61 | 59.2 |
| Single-parent | 39 | 37.5 | 33 | 32.0 |
| Guardian/Other | 10 | 9.6 | 9 | 8.7 |

*$p < .05$; **$p < .001$

Table 2. School Comparisons of Pre and Post Scales (Full Sample)

| | | | Pre-Test Score | | Post-Test Score | | | |
|---|---|---|---|---|---|---|---|---|
| | Scale Name | Highest Scale Score Possible | Comparison | Intervention | Comparison | Intervention | Comparison School Post-Pre Difference (N=106) | Intervention School Post-Pre Difference (N=112) |
| SOCIAL | Relationship Skills/Social Awareness | 12 | 8.38 | 9.40 | 7.92 | 8.56 | -0.41 | -0.84 |
| | Self-worth Around Others | 44 | 33.93 | 35.11 | 33.15 | 33.77 | -1.33 | -0.64 |
| | School Belonging | 25 | 13.47 | 15.67 | 13.05 | 14.55 | -1.01 | -0.35 |
| ACADEMIC | Control Beliefs (Future) | 8 | 7.79 | 7.65 | 7.77 | 7.56 | -0.06 | -0.03 |
| | Self-efficacy | 12 | 9.42 | 9.19 | 9.67 | 9.22 | 0.25 | 0.05 |
| | Student Autonomy | 25 | 12.16 | 14.76 | 10.92 | 13.18 | -1.62 | -1.03 |
| | **Emotional Engagement** | **25** | **17.20** | **18.54** | **16.49** | **16.16** | **-.77*** | **-2.32*** |
| | Behavioral Engagement | 25 | 20.95 | 21.40 | 20.14 | 19.75 | -1.62 | -0.79 |
| | **Academic Efficacy** | **25** | **20.92** | **21.60** | **20.80** | **20.42** | **-1.36*** | **-0.26*** |
| CIVIC | Civic Engagement | 8 | 5.47 | 5.85 | 5.14 | 5.58 | -0.19 | -0.33 |
| | Civic Duty | 60 | 42.59 | 46.71 | 41.60 | 43.29 | -3.29 | -1.05 |
| | Civic Participation | 10 | 6.94 | 7.96 | 6.66 | 7.14 | -0.8 | -0.3 |
| | Neighborhood Social Connection | 15 | 9.28 | 9.26 | 8.72 | 8.86 | -0.32 | -0.57 |
| | Community | 20 | 11.75 | 13.92 | 11.41 | 13.46 | -0.47 | -0.52 |
| | Parent, home community enrichment | 15 | 6.63 | 7.83 | 6.44 | 7.76 | -0.04 | -0.21 |
| | Parent Scale | 20 | 17.06 | 18.21 | 17.12 | 17.50 | -0.67 | -0.09 |

*$p < .05$ (Higher score values indicate agreement with statements).*

Table 3. At-Risk Student Demographics

| | Comparison School | | Intervention School | |
|---|---|---|---|---|
| | N | % | N | % |
| **TOTAL** | 65 | | 63 | |
| **Gender** | | | | |
| Males | 25 | 38.5 | 32 | 50.8 |
| Females | 40 | 61.5 | 31 | 49.2 |
| **Race** | | | | |
| African American | 59 | 90.8 | 44 | 80.0 |
| White | 1 | 1.5 | 3 | 5.5 |
| Hispanic/Latino | - | 0.9 | - | - |
| Asian or Pacific Islander | - | - | - | - |
| Multiethnic | 3 | 4.6 | 2 | 3.6 |
| Native American/Alaskan Native | - | - | 1 | 1.8 |
| Other | 1 | 1.5 | 5 | 9.1 |
| **Mom's Education** | | | | |
| High School Diploma or Less | 18 | 43.9 | 13 | 27.7 |
| Some College or More | 23 | 56.1 | 34 | 72.3 |
| **Dad's Education** | | | | |
| High School Diploma or Less | 22 | 54.7* | 14 | 38.9* |
| Some College or More | 12 | 35.3* | 22 | 61.1* |
| **Household Family Composition** | | | | |
| Two-parent | 26 | 41.3 | 31 | 55.4 |
| Single-parent | 29 | 46.0 | 19 | 33.9 |
| Guardian/Other | 8 | 12.7 | 6 | 10.7 |

*$p < .05$; ** $p < .001$*

Table 4. At-Risk Sample Behaviors

| | | Comparison School | | | | Intervention School | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Pre-Test | | Post-Test | | Pre-Test | | Post-Test | |
| | Behavior | N | % | N | % | N 64 | % | N | % |
| ACADEMIC | Failed Courses | 30 | 46.88 | 29 | 48.33 | 39 | 60.9 | 33 | 52.38 |
| | Obtained Failing Grades | 50 | 76.92 | 43 | 71.67 | 46 | 71.88 | 29 | 46.03 |
| | Suspensions | 27 | 41.54 | 32 | 53.33 | 20 | 31.25 | 14 | 22.58 |
| | Cut Classes | 12 | 18.46 | 14 | 22.95 | 8 | 12.5 | 11 | 17.46 |
| BEHAVIORAL | Got/Caused Pregnancy | - | - | - | - | 1 | 1.56 | 1 | 1.56 |
| | Had/Fathered a Baby | - | - | - | - | 1 | 1.56 | 1 | 1.56 |

*These numbers represent individuals who indicated they had done any of the behaviors in the previous school year (not the frequency of their actions).*

Table 5. School Comparisons of Pre and Post Scales (At-Risk Student Sample)

| | | | Pre-Test Score | | Post-Test Score | | | |
|---|---|---|---|---|---|---|---|---|
| | Scale Name | Highest Scale Score Possible | Comparison School | Intervention School | Comparison School | Intervention School | Comparison School Post-Pre Difference (N=61) | Intervention School Post-Pre Difference (N=63) |
| SOCIAL | Relationship Skills/Social Awareness | 12 | 8.180 | 9.15 | 7.87 | 8.52 | -.25 | -.61 |
| | Self-worth around others | 44 | 33.50 | 34.92 | 32.03 | 34.26 | -1.23 | -.85 |
| ACADEMIC | School Belonging | 25 | 13.20 | 15.13 | 12.75 | 14.50 | -.47 | -.55 |
| | Control Beliefs (Future) | 8 | 7.78 | 7.53 | 7.82 | 7.55 | .02 | -.03 |
| | Self-efficacy | 12 | 9.18 | 9.05 | 9.47 | 9.31 | .29 | .30 |
| | Student Autonomy | 25 | 12.12 | 14.29 | 11.11 | 13.56 | -.66 | -.77 |
| | Emotional Engagement | 25 | 16.82 | 18.39 | 16.35 | 16.22 | -.57 | -2.15 |
| | Behavioral Engagement | 25 | 20.85 | 21.15 | 19.97 | 19.21 | -.83 | -1.82 |
| | Academic Efficacy | 25 | 20.76 | 21.19 | 20.34 | 20.37 | -.65 | -1.14 |
| CIVIC | **Civic Engagement** | **8** | **5.43** | **5.51** | **5.08** | **5.58** | **-.35*** | **.24*** |
| | Civic Duty | 60 | 40.89 | 46.15 | 40.69 | 42.61 | -.12 | -3.32 |
| | Civic Participation | 10 | 6.78 | 7.84 | 6.45 | 7.30 | -.33 | -.49 |
| | **Neighborhood Social Connection** | **15** | **9.48** | **8.92** | **8.59** | **9.41** | **-.90*** | **.60*** |
| | Community | 20 | 11.47 | 13.77 | 10.94 | 13.56 | -.69 | -.28 |
| | Parent, home community enrichment | 15 | 6.66 | 7.47 | 6.28 | 7.07 | -.34 | -.27 |
| | Parent Scale | 20 | 16.63 | 17.97 | 16.78 | 17.40 | -.06 | -.48 |

*$p < .05$ (Higher score values indicate agreement with statements).*

Table 6. Logistic Regressions for Behavioral Outcomes –Students Receiving TOP

| Sample | Predictor | N | Model χ2 | Max Rescaled R2 | *B* | *SE B* | *OR* | *95% CI* | |
|---|---|---|---|---|---|---|---|---|---|
| **FULL** | Failing Courses | 162 | 36.72*** | 0.30 | -0.65 | 0.7 | 0.52 | 0.13 | 2.07 |
| | Failing Grades | 163 | 49.31*** | 0.38 | -1.76*** | 0.45 | .17*** | 0.07 | 0.42 |
| | Cutting Class | 164 | 20.97** | 0.21 | -1.28* | 0.51 | 0.28* | 0.1 | 0.76 |
| | Suspensions | 162 | 44.51*** | 0.35 | -1.17** | 0.43 | 0.31** | 0.13 | 0.73 |
| **AT-RISK** | Failing Courses | 86 | 14.36* | 0.20 | .02 | 0.49 | 1.01 | 0.39 | 2.67 |
| | Failing Grades | 86 | 16.8* | 0.24 | -1.40** | 0.52 | 0.25** | 0.09 | 0.69 |
| | Cutting Class | 87 | 14.60* | 0.26 | -.51 | 0.69 | 0.6 | 0.16 | 2.32 |
| | Suspensions | 86 | 31.47*** | 0.40 | -1.21* | 0.53 | 0.29* | 0.11 | 0.84 |

*$p$ < .05. **$p$ < .01. ***$p$ < .001.

*Note:* Coding was conducted as follows: Gender (1 = female); Mother/Father's Education (1 = High school graduation or more); TOP Intervention (0 = MS-2; 1 = MS-1); Household Composition (0 = Two-parent family; 1 = Single Parent; 2 = Guardian/Other); Previous History of *X* behavior (0 = No; 1 = Yes). Control items include the following variables: Gender, mother and father's education, family composition, and previous history of *X* behavior.

**Reference Variable is by School**: (0 = Comparison School (no TOP); 1 = Intervention School (Received TOP Intervention)

Table 8. Description of Scales and Questions

| Scale Description | Question | Value |
|---|---|---|
| Self-Efficacy | I can work out my problems if I try hard enough. | 1 = None; 2 = A little; 3 = Quite a bit; 4 = A lot |
| | It's easy for me to stick to my plans. | |
| | I can usually handle whatever comes | |
| Relationship Skills/Social Awareness | I like to see other people happy. | 1 = None; 2 = A little; 3 = Quite a bit; 4 = A lot |
| | Most people can be trusted. | |
| | There is some good in everybody | |
| Civic Engagement | I do interesting activities | 1 = None; 2 = A little; 3 = Quite a bit; 4 = A lot |
| | I help decide things like class activities or rules | |
| Control Beliefs | I have goals and plans for the future. | 1 = None; 2 = A little; 3 = Quite a bit; 4 = A lot |
| | I plan to graduate | |
| Educational Level | What is the highest level of education you plan to complete? | 1 = Not planning to complete high school; 2 = HS; 3 = Career/technical school; 4 = 2 year community college or junior college; 5 = 4 year college or university; 6 = Graduate or professional school; 7 = Undecided; 8 = Other |
| Student Autonomy | Students have a say in how things work. | 1 = None; 2 = a little; 3 = Occasionally; 4 = Quite a bit; 5 = A lot |
| | Students help decide how class time is spent. | |
| | Students are given the chance to make decisions. | |
| | Students get to help to decide some of the rules. | |
| | Teachers ask students what they want to learn about | |
| Civic Discussion | How often does the following occur: in my class we talk about different solutions or points of view. | 1 = None; 2 = a little; 3 = Occasionally; 4 = Quite a bit; 5 = A lot |
| School Belonging | I feel like a real part of my school. | 1 = None; 2 = a little; 3 = Occasionally; 4 = Quite a bit; 5 = A lot |
| | Sometimes I feel as if I don't belong here.* | |
| | I wish I were in a different school.* | |
| | I feel proud of belonging to this school. | |

| | | |
|---|---|---|
| | I am happy to be at this school. | |
| Emotional Engagement | My classes are fun. | 1 = None; 2 = a little; 3 = Occasionally; 4 = Quite a bit; 5 = A lot |
| | I enjoy learning new things in my classes. | |
| | When we work on something in class I feel interested. | |
| | When I am in class I feel good. | |
| | In my classes I work as hard as I can. | |
| Behavioral Engagement | I pay attention in my classes. | 1 = None; 2 = a little; 3 = Occasionally; 4 = Quite a bit; 5 = A lot |
| | When I'm in class I participate in class discussions. | |
| | When I'm in class I listen very carefully. | |
| | I try hard to do well in school. | |
| | When we work on something in class, I get involved. | |
| Academic Efficacy | I can do even the hardest school work if I try. | 1 = None; 2 = a little; 3 = Occasionally; 4 = Quite a bit; 5 = A lot |
| | Even if the school work is hard I can learn it. | |
| | I can do almost all my school work if I don't give up. | |
| | I am certain that I can master the skills taught in school this year. | |
| | I am certain that I can figure out even the most difficult school work. | |
| Self-Worth Around Others/Altruism | I can work with someone who has different opinions than mine. | 1 = None; 2 = A little; 3 = Quite a bit; 4 = A lot |
| | There are many things that I do well. | |
| | I feel bad when someone gets their feelings hurt. | |
| | I try to understand what other people go through. | |
| | When I need help, I find someone to talk with. | |
| | I enjoy working together with others students my age. | |
| | I stand up for myself without putting others down. | |
| | I try to understand how other people feel and think. | |

| | | |
|---|---|---|
| | There is purpose to my life. | |
| | I understand my moods and feelings. | |
| | I understand why I do what I do. | |
| Community | The adults in this neighborhood know who the local children are. | 1 = None; 2 = A little; 3 = Quite a bit; 4 = A lot |
| | During the day it is safe for children to play in the local park or playground. | |
| | People in this neighborhood can be trusted. | |
| | There are adults in this neighborhood that children can look up to. | |
| | The equipment and buildings in the neighborhood, park or playground are well kept. | |
| Civic Duty | It's not really my problem if my neighbors are in trouble and need help.* | 1 = None; 2 = a little; 3 = Occasionally; 4 = Quite a bit; 5 = A lot |
| | I believe I can make a difference in my community. | |
| | When I see someone being taken advantage of, I want to help them. | |
| | I often think about doing things so that people in the future can have things better. | |
| | When I see someone being treated unfairly, I don't feel sorry for them.* | |
| | I feel sorry for other people who don't have what I have. | |
| | It is important to me to contribute to my community and society. | |
| | Helping to reduce hunger and poverty in the world. | |
| | Helping to make sure all people are treated fairly. | |
| | Helping to make the world a better place to live in. | |
| | Helping other people. | |
| | Speaking up for equality. | |
| Civic Participation | Help out at my school. | 1 = None; 2 = A little; 3 = Occasionally; 4 = Quite a bit; 5 = A lot |
| | If I saw a classmate having trouble, I would help, even if it took more than I expected. | |

| | | |
|---|---|---|
| Neighborhood Social Connection | Adults in my town or city listen to what I have to say. | 1 = None; 2 = a little; 3 = Occasionally; 4 = Quite a bit; 5 = A lot |
| | In my neighborhood there are lots of people who care about me. | |
| | If one of my neighbors saw me doing something wrong he or she would tell my parents. | |
| Parent, home community enrichment | Are you at home alone without supervision? | 1 = Yes 0 = No |
| | Do you participate in academic activities after school? | |
| | Do you participate in enrichment activities (e.g. clubs, sports/fitness, music, etc.) after school? | |
| Parent Scale | [HOW OFTEN DO YOUR PARENTS…] Encourage you to work hard at school | 1 = None; 2 = A little; 3 = Quite a bit; 4 = A lot |
| | [HOW OFTEN ARE YOUR PARENTS…] supportive of the things you like to do outside of school. | |
| | [HOW OFTEN DO YOUR PARENTS…] listen to you when you need to talk | |
| | [HOW OFTEN DO YOUR PARENTS…] show that they are proud of you | |
| | [HOW OFTEN DO YOUR PARENTS…] take time to help you make decisions? | |
| Process feedback for TOP | When I am at TOP I can say what I think. | 1 = None; 2 = A little; 3 = Quite a bit; 4 = A lot |
| | I feel safe (physically) during TOP. | |
| | TOP facilitators care about me. | |
| | TOP facilitators understand me. | |
| | TOP facilitators support and accept me. | |
| | I feel like I belong at TOP; it is a positive group of teens for me. | |
| | I am looking forward to the community service part of TOP. | |
| TOP Emotional Engagement | My TOP club is fun. | 1 = None; 2 = A little; 3 = Quite a bit; 4 = A lot |
| | I enjoy learning new things in TOP. | |
| | When we work on something in TOP I feel interested. | |
| | When I am in TOP I feel good. | |

| | | |
|---|---|---|
| | In TOP classes I work as hard as I can. | |
| Risky Behaviors | Did you fail any courses during the last year? | 1 = yes; 2 = no; 3 = yes - 1 time; 4 = yes, 2 times; 5 = yes, 3 times; 6 = yes 4 times; 7 = yes, 5 times; 8 = yes, 6 times; 9 = yes, 7 times |
| | Did you get any failing grades on your report card? | 1 = yes; 2 = no; 3 = yes - 1 time; 4 = yes, 2 times; 5 = yes, 3 times; 6 = yes 4 times; 7 = yes, 5 times; 8 = yes, 6 times; 9 = yes, 7 times |
| | Did you get suspended from school? | 1 = yes; 2 = no; 3 = yes - 1 time; 4 = yes, 2 times; 5 = yes, 3 times; 6 = yes 4 times; 7 = yes, 5 times; 8 = yes, 6 times; 9 = yes, 7 times |
| | Did you cut classes without permission? | 1 = yes; 2 = no; 3 = yes - 1 time; 4 = yes, 2 times; 5 = yes, 3 times; 6 = yes 4 times; 7 = yes, 5 times; 8 = yes, 6 times; 9 = yes, 7 times |
| | Get pregnant or cause a pregnancy last year? | 1 = yes; 2 = no; 3 = yes - 1 time; 4 = yes, 2 times; 5 = yes, 3 times; 6 = yes 4 times; 7 = yes, 5 times; 8 = yes, 6 times; 9 = yes, 7 times |
| | Have a baby or father a child? | 1 = yes; 2 = no; 3 = yes - 1 time; 4 = yes, 2 times; 5 = yes, 3 times; 6 = yes 4 times; 7 = yes, 5 times; 8 = yes, 6 times; 9 = yes, 7 times |
| | Gender | 1 = Male; 2 = Female; 3 = Transgender; 4 = I prefer not to answer |
| | What grade are you in school this year? | 1 = 5th grade; 2 = 6th grade; 3 = 7th grade; 4 = 8th grade; 5 = 9th grade; 6 = 10th grade; 7 = 11th grade; 8 = 12th grade |

| | | |
|---|---|---|
| | What is your race/ethnicity? | 1 = Black/African American; 2 = White non-Hispanic; 3 = Hispanic/Latino; 4 = Asian or Pacific Islander; 5 = Multiethnic; 6= Native American/Alaskan Native; 7 = Other; 8 = I prefer not to answer |
| | During most of the time you were growing up, with whom did you live? | 1 = Mother and father; 2 = father only; 3 = Mother only ; 4 = Mother and stepfather; 5 = Father and stepmother; 6 = Guardian; 7 = Other; 8 = Other grandparent |
| | What is the highest grade that each of your parents completed? (MOM) | 1 = Less than high school; 2 = High school graduate; 3 = Some college; 4 = College graduate or higher; 5 = "I don't know; 6 = GED |
| | What is the highest grade that each of your parents completed? (DAD) | 1 = Less than high school; 2 = High school graduate; 3 = Some college; 4 = College graduate or higher; 5 = "I don't know; 6 = GED |

*Items that were reverse-coded

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