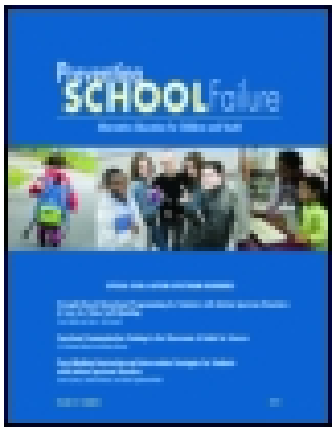

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Dropout Prevention Intervention With Secondary Students: A Pilot Study of Project GOAL

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Project GOAL is a systematic dropout prevention model including individual and peer-mediated group interventions for at-risk students. This article provides an overview of the Project GOAL model and describes a 2-year experimental pilot study of Project GOAL with a cohort of eighth- and ninth-grade students in a low-income school district in the southwest United States. Qualifying eighth-grade students ($n = 94$) in one middle school were randomly assigned to one of two conditions: Project GOAL or a business-as-usual control. Preliminary program outcomes include an increase in educational expectations for Project GOAL students but a decline in their view of school's relevance. The authors provide key insights into effective school-level implementation for settings that embrace a long-term commitment to change.

Keywords: dropout prevention, peer supports, secondary school

Soaring rates of school dropout, compounded by low rates of literacy among secondary students, plague districts across the nation (National Center for Education Statistics, 2010). According to a recent report by Balfanz, Bridgeland, Bruce, and Fox (2012), some progress has reportedly been made in boosting high school graduation rates across the country; yet many states continue to lag behind. Terms such as *dropout factories* have become commonplace when referring to the roughly 2,000 high schools responsible for producing close to half of the nation's dropouts (Balfanz & Legters, 2006).

Dropping out of school can have lifelong consequences for individuals and society (Dynarski, 2008). Overall, years of education completion share a strong relation with annual earnings and ability to progress professionally and contribute positively to society (Belfield & Levin, 2007). High school dropouts make significantly less income than do high school graduates (Bureau of Labor Statistics, 2010). In addition, dropouts often commit crimes that lead to incarceration and/or remain unemployed, increasing the burden on society and the economy in general (August & Shanahan, 2006).

The No Child Left Behind Act of 2001 focused our attention on the grave issue of school dropout by holding high schools and school systems accountable for graduation rates and academic performance, but despite this attention we have a lack of rigorous research addressing school dropout. Specifically, more research regarding the best methods for identifying at-risk youth, as well as how to implement systematic interventions designed to meet these students' needs with limited resources is warranted.

In this article, we briefly summarize the research on these issues and then provide an overview of a 3-year dropout prevention intervention project with a focus on the 1-year development of and 2-year pilot study of Project GOAL: Graduation = Opportunities for Advancement and Leadership, a systematic dropout prevention intervention and student engagement model. Project GOAL extends Check & Connect, a student engagement intervention model (see Sinclair, Christenson, Evelo, & Hurley, 1998; Sinclair, Christenson, & Thurlow, 2005), by including a systematic data tracking system with a responsive plan for intervention based on student risk data and a peer-mediated group intervention element. We conclude with a summary of findings and key insights from this 3-year endeavor.

Summary of the Research

For Whom and When to Intervene

Dropping out of school is the result of gradual disengagement that begins early in one's school career (Finn, 1989, 1993). Because many students exhibit warning signs, it is possible to establish risk profiles to identify students for whom to intervene (Balfanz, Herzog, & MacIver, 2007; Finn, 1989, 1993; Gleason & Dynarski, 2002). Students who struggle academically or who demonstrate high rates of behavioral infractions

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(e.g., absenteeism) may indicate student withdrawal and, ultimately, risk of dropout (Allensworth & Easton, 2005; Balfanz et al.; Fall & Roberts, 2012).

The process of disengagement can start early in Kindergarten and intensify during Grades 4 to 7, resulting in many students dropping out of school by Grade 10 (Belfield & Levin, 2007). The question of exactly when is the most appropriate and effective time to intervene remains unanswered, although research currently supports intervening as early as possible and paying specific attention to times of transition, such as from elementary to middle school and middle to high school (Lehr, Sinclair, & Christenson, 2004; Roderick, 1993). Making the transition from one school 'level' to the next or to postsecondary education or employment can cause anxiety, which can lead to academic struggles and increased inappropriate behavior (Morgan & Hertzog, 2001; Wigfield, Eccles, MacIver, Reuman, & Midgley, 1991; Zeedyk et al., 2003).

It is essential that educators identify at-risk students and intervene as early as possible, especially during these sensitive times of transition, to prevent further disengagement and to prepare students for postsecondary success. Adult support can begin in middle school to prepare students for future high school expectations, postsecondary education or employment, and a seemingly much larger, chaotic environment (National Association of State Boards of Education, 2008). When students do not possess or are not prepared to apply self-management and advocacy skills, problem solving, goal setting, and study skills, they may struggle academically and socially, and, consequently, behave inappropriately (Test et al., 2009).

Intervention Practices

Lehr et al. (2004) noted that a majority of dropout prevention studies are descriptive in nature, leading to a dearth of information about procedures from rigorously evaluated dropout prevention programs. We can, however, glean guidance from a recent practice guide commissioned by the Institute of Education Sciences. The authors of this guide systematically reviewed rigorous studies of dropout prevention programs and identified several program characteristics with various levels of evidence to support their effectiveness (Dynarski et al., 2008). Several of the interventions (e.g., Check and Connect, ALAS Resilience Builders) that the panel evaluated and synthesized are also cited as promising dropout prevention interventions on the What Works Clearinghouse, a website that the Institute of Education Sciences developed to report on best practices in education, according to rigorous scientific evidence.

Using evidence from the reviewed studies, the panel identified six practices that have the potential to reduce school dropout. The recommendations are divided into three categories: (a) *diagnostic processes* for identifying student-level and school-wide dropout problems; (b) *targeted interventions* for a subset of middle and high school students identified as being at risk of dropping out; and (c) *school-wide interventions* designed to enhance engagement for all students and prevent dropout. To diagnose the prevalence of students at risk of dropping out, it is recommended that schools utilize data systems that support a realistic diagnosis of the number of students who drop out and that help identify individual students at high risk of dropping out (Recommendation 1). These students should receive targeted interventions including the assignment of adult advocates to students at risk of dropping out (Recommendation 2), academic support and enrichment to improve academic performance (Recommendation 3), and programs to improve students' classroom behavior and social skills (Recommendation 4). Schoolwide interventions should aim to personalize the learning environment and instructional process (Recommendation 5) and provide rigorous and relevant instruction to better engage students in learning and provide the skills needed to graduate and to serve them after they leave school (Recommendation 6). These recommendations guided the development of PROJECT GOAL.

Purpose

The goal of our 3-year endeavor was to develop and pilot-test a systematic dropout prevention intervention. We addressed the following research questions:

- How effective is Project GOAL in increasing a cohort of at-risk 8th and 9th grade students' perceived relevance of schoolwork and future educational expectations?
- How effective is Project GOAL in maintaining a cohort of at-risk 8th and 9th grade students' school enrollment status?
- What key insights can be drawn regarding the feasibility of implementation of Project GOAL with a cohort of at-risk 8th–9th grade students?

Method

Design

Students served as the unit of assignment and analysis in this 2-year randomized controlled trial pilot study. Qualifying Grade 8 students ($n = 94$) in one middle school were randomly assigned to one of two conditions: Project GOAL or a typical-school-practice comparison condition. One Project GOAL advisor implemented the intervention for a caseload of approximately 35 students (varied because of attrition) over the course of 2 years of intervention.

Participants

School Sites

We conducted the research with the same cohort of students over 2 years in one large, urban city in the southwest United States. In 2009–2010, the participants were students in Grade 8 in one of the two middle schools in the district. In 2010–2011, we continued to provide intervention to the participants during their ninth grade year in the high school. We selected this district because of its diverse demographics and historically high rates of school dropout. The school district

population is approximately 28% Black, 61% Hispanic, 8% White, 2% Asian, and less than 1% Native American. Approximately 84% of the students were identified as economically disadvantaged and 27% had limited English proficiency.

Selection and Student Participants

After screening seventh-grade students during the spring of 2009, we identified 94 students as being at-risk for dropping out. We obtained consent for all students and randomly assigned each student to participate in the Project GOAL ($n = 38$) or comparison ($n = 56$) condition during their eighth-grade year. We assigned fewer students to the Project GOAL condition to keep the caseload manageable. Students met criteria for inclusion if they had one or more of the following risk indicators during their seventh-grade school year based on data collected from the district: (a) attended school less than 90% of the time; (b) had at least five disciplinary referrals; (c) were tardy more than 10% of the time; (d) failed the reading portion of the state test; (e) failed mathematics, English/language arts, science, or social studies in either semester; or (f) were retained during their sixth- or seventh-grade year. These risk indicators represent the most significantly predictive risk factors of dropping out of school (Balfanz et al., 2007; Gleason & Dynarski, 2002; Kennelly & Monrad, 2007; Rumberger & Lim, 2008). In addition, because this was an initial pilot study, we elected to cast a wide net and accept students for inclusion based on meeting one or more of these criteria. To ensure comparability between conditions, we compared students across three dimensions: background characteristics, engagement levels, and reading outcomes. We found no statistically significant differences between the variables.

In the fall of the first year of intervention, after summer attrition, nearly 83% ($n = 78$) of the participants were open, active cases (see Table 1). Because of attrition over the next 2 years, for a variety of reasons (e.g., student mobility, death), the final sample at the end of the second year was 52 students—21 in the Project GOAL condition and 31 in the comparison condition.

Project GOAL Advisor

The researchers hired and trained one female Project GOAL advisor who had 8 years of secondary school teaching experience, held a master's degree in education, a bachelor's degree in English, and teaching certifications in English/language arts, English as a second language, and as a reading specialist. She also served as a reading interventionist for a previously conducted, federally funded, reading intervention study with at-risk Grade 8 students in the same middle school the Project GOAL study was conducted in, providing her a great deal of experience conducting research and implementing intervention in the district.

In addition to implementing the intervention, the Project GOAL advisor served as a liaison between the research team and the school district and played a significant role in designing and refining modifications to the Project GOAL intervention in response to students' needs and the logistical needs of the school. The research team provided the Project GOAL advisor with approximately 40 hr of professional development before implementation, including a training on Check and Connect (2008) sponsored by the University of Minnesota, the program Project GOAL was modeled after. The Principal Investigator and project director, who both hold doctorates in special education and have extensive experience working with at-risk secondary students, provided ongoing, onsite coaching and feedback.

Table 1. Student Demographics

	Total sample ($N = 78$)	Project GOAL condition ($n = 32$)	Comparison condition ($n = 46$)
Sex			
Female	38	16	22
Male	40	16	24
Ethnicity			
Black	25	11	14
Hispanic	47	19	28
White	5	2	3
Asian	1	0	1

Description of Intervention

Phase I: Exploration and Development

Our primary goal was to create an efficacious, cost-effective, and time-efficient dropout prevention intervention and to examine the feasibility of this model in authentic application. For further guidance on intervention development, during 2008-2009, we interviewed critical stakeholders (e.g., administrators, teachers, at-risk students) in a dropout prevention charter school and three key personnel members from three school districts in the southwest U.S. regarding their practical knowledge, experience, and application of dropout prevention practices. The six recommendations from the Institute of Education Sciences' dropout prevention practice guide (Dynarski et al., 2008) served as the basis for our interview questions. Questions ranged from which recommendations seemed the most valuable for at-risk students to how schools determine which students are at risk.

The interviews revealed that the Institute of Education Sciences' recommendations were implemented with a variety of intensity. For example, mentoring programs ranged from adult volunteer mentors to faculty members serving as full-time advocates. Results indicated that among all the recommendations, the key stakeholders most valued: (a) using a systematic, up-to-date, and accurate data-tracking system to identify, monitor progress, and plan interventions for at-risk students (although many stakeholders noted a lack of systematic processes in place); and (b) providing adult advocates to meet with at-risk students frequently, provide guidance on school and non-school matters, model positive behavior and decision making, and serve as a trusted adult figure. Students from the dropout prevention charter school said that being in an environment with peers "like them" resulted in mutual peer support. On the basis of this information, as well as guidance gleaned from previously synthesized research (see

Table 2. Project GOAL Program Model

	Individual interventions			Group interventions		
	Connect commitment	Connect conversation	Home connection	College and career exploration	GOAL session	Motivation
Intensive interventions	Varies	At least 2	1	1 (1/month)	1 (biweekly)	2 (biweekly)
	Total = At least 7					
Basic interventions	Varies	At least 1	1 biweekly	1 (1/month)	1 (biweekly)	1 (biweekly)
	Total = At least 5					
Monitoring only	At least 1	Varies	—	1 (1/month)	1 (biweekly)	1 (biweekly)
	Total = At least 1					

Note. The program model is representative of one school week unless otherwise indicated.

Dynarski et al., 2008), we integrated the following key components into Project GOAL: (a) a systematic data-tracking system, (b) an adult advocate to track these data and implement individualized interventions, and (c) peer-mediated group support.

Phase II: Continued Development and Evaluation

Phase II of the study began during the following school year. During this phase, we began the experimental pilot study of Project GOAL with a cohort of Grade 8 students. The final third year included continued implementation, refinement of Project GOAL, and development and assessment of fidelity procedures with the same cohort of students until the end of their Grade 9 year.

A Project GOAL advisor was responsible for the ongoing implementation of three core intervention elements: (a) student data checks, (b) individual interventions, and (c) peer-mediated group interventions (see Table 2).

School: XX High School Advisor: XXXXXX Date: _____

II= 2
BI= 2
M= 1

Project GOAL Student Progress Check

Weekly progress (week of _____-_____) or Cycle/cumulative progress (dates of _____-_____)

Student Name	GRADES: Low C (70-74)	GRADES: F = Close to passing (60-69)	GRADES: F = Far from Passing (≤59)	ATTENDANCE: Unexcused Absence	ATTENDANCE: Excused Absence	ATTENDANCE: Class Skips/Tardy Tank	BEHAVIOR: Referrals	BEHAVIOR: ISS	BEHAVIOR: OSS	CRI: # of Credits Earned	* Other Concerns Present	NOTES: Specific Classes, Attendance Patterns, Notes for Consideration, Etc.	Status	INTERVENTION PLAN FOR NEXT WEEK Week of _____ - _____: Actions & Interventions planned to implement during the following week that target a student's risk behavior	M	T	W	R	F	Completed
Example Student A	1	2	1		3	3	1			3	*	Failing Alg 64% and Bio 68%, continues to skip Art and failing badly-41%	II	4 Art-why skipping		3				✓
														2 Art teacher and parent about grades and abs		L				✓
														6 Attendance contract with student, parent, and Admin				AS		✓
Example Student B	3				1	4				6		Tardies-all in P5 Span	BI	4 Tardies-all in P5 Spanish		5				nwk
Example Student C	1									7		Geog 72%	MC	3 P2-Geog missing packet	2					✓
Example Student D	1				7					5	*	Geom 70%	II	1 Ab-related to mom's illness?	2		2		2	✓
														6 Mot-pos reinforce grades						
Example Student E	2									7		74% on weekly Alg test brought down first time in 3 weeks, cont to earn ave 74% in French	BI	1 Alg-how to study for test next week						✓

Quick Reference for Interventions

1. Connect Commitment with student about _____ (May develop into CC)
2. Connect with school staff about _____
3. Observe student in _____
4. Connect Conversation with student about _____
5. Home connection about _____
6. Other

Fig. 1. Project GOAL student progress check with sample student data.

Student Data Checks

Using a systematic monitoring process (see Figure 1), a Project GOAL advisor checked and recorded all treatment students' risk indicator data (e.g., attendance, behavior, grades) at least weekly. The Project GOAL advisor also recorded additional concerns or issues for each student that numerical calculations of the risk indicator data did not capture. The purpose of checking students' data frequently was to gain the familiarity necessary to provide timely and targeted intensive supports in response to increasing signs of disengagement. Each student's risk status was based on his or her weekly performance on the data indicators. Students were classified based on their risk status as needing monitoring only, basic intervention, or intensive intervention on a weekly basis (see Table 3). Each level of intensity required a minimum number of interventions and, depending on the severity of risk, outlined the type of intervention implemented, as referenced in the program model (see Table 2). Regardless of risk status, all students participated in standardized peer-mediated group interventions.

Individual Interventions

The Project GOAL advisor implemented the following individual intervention components weekly, with varied intensity depending on students' needs: (a) connect commitment, (b) connect conversation, and (c) home connection (see Table 2).

The Project GOAL advisor provided all treatment students a minimum of one weekly connect commitment. A connect commitment is a brief interaction with a student, such as greeting a student to gauge a student's academic or social-emotional status. Students' needs, based on data, determined the type of connect commitment that the Project GOAL advisor provided. For example, a connect commitment for a student with rates of low attendance may include the Project GOAL advisor greeting the student and expressing that he/she is happy to see the student in school.

A connect conversation is a more substantive interaction with a student that included a discussion of his or her risk indicators and the development of a plan of action to target the risk indicators. For example, if a student was chronically absent, the Project GOAL advisor gathered information to clarify why the student was regularly missing school and determined whether there was a justifiable excuse for the absence. Then, together, they developed a reasonable approach to increase attendance by establishing a goal attendance rate based on the student's current attendance rate.

Home connections included the Project GOAL advisor contacting students' families to praise student behavior or discuss students' risk indicators, needs, or solutions to address identified needs. A monthly newsletter of Project GOAL events, peer-mediated group session topics, and helpful strategies to promote family and student engagement was sent to all Project GOAL students' homes. The Project GOAL advisor addressed additional home challenges, such as access to school materials and clothing, as needed.

Table 3. Project GOAL Weekly Student Risk Status

Weekly data	Intensive	Basic	Monitoring
Period absences (unexcused absence, excused absence, and tardy)	≥ 8	3–7	≤ 2
Behavioral infractions (referral, in-school suspension, and out-of-school suspension)	> 1	1	0
Grades class score (%)	$\leq 69\%$ any class	70–74% any class	$\geq 75\%$ all classes

Peer-Mediated Group Interventions

The Project GOAL advisor implemented the following three components of the peer-mediated group interventions approximately twice a month: (a) GOAL sessions, (b) college and career exposure and exploration opportunities, and (c) a motivation system (see Table 2). The peer-mediated group interventions were standardized to provide all treatment students the same amount and type of small-group peer-mediated intervention, regardless of their risk status.

GOAL sessions, grounded in self-determination literature, created small learning communities where students worked with their peers to track their performance and attainment of student-set goals and practice problem solving to prepare for future success (see Author, 2011; Carter, Lane, Crnobori, Bruhn, & Oakes, 2011; Test, Fowler, Brewer, & Wood, 2005). Of the 16 GOAL sessions provided during year 1 of the intervention, the first two sessions were individual meetings designed to establish the purpose of Project GOAL and learn about each student's interests, support structure, and goals. The remaining 14 sessions were biweekly, 50-min, small-group sessions ($n = 6$–8). During year 2 of the intervention, students continued to practice self-monitoring of goals, grades, and credits during monthly GOAL sessions, and students also focused on college and career awareness and readiness skills. The final session was an exit interview.

Another important component of the peer-mediated group interventions was college and career exploration, featuring field trips tailored to students' interests. During year 1 of the pilot study, we offered seven college and career exploration trips (e.g., veterinary clinic, community college, art institute). All students participated in a minimum of one college and career exploration trip based on their interests, and the majority of students attended five or more. During year 2 of the pilot study, the students engaged in school-based exploration activities, such as completing surveys of interests and meeting at the school's career center to research potential career expectations.

The third group session component was motivation, which included a structured, peer-mediated incentive program: Promoting Enthusiastically Engaged Peer Success. The Promoting Enthusiastically Engaged Peer Success system required

peers and/or teachers to recognize students for meeting or exceeding school expectations in academics, behavior, and leadership. In addition, in year 1 of the pilot study, members of the local university Latino fraternity and Latina sorority mentored students in groups and one-on-one, focusing primarily on how setting goals and making positive life choices lead to a successful future. Motivation was also embedded into individual interventions during connect conversations and GOAL sessions. For instance, students set and monitored their goals and tracked their school achievement and attendance.

Fidelity Data

Fidelity of implementation procedures reflected the two main components of the intervention: (a) individualized implementation and (b) peer-mediated group session implementation. Before developing the fidelity procedures, the director and a graduate research assistant observed the Project GOAL advisor for 50 hr across various times of the school day and days of the week to inform what percentage of time was dedicated per responsibility to confirm the program model expectations. During year 1, the project director and the same graduate research assistant coded fidelity of daily implementation for reliability purposes and during year 2, the project director coded fidelity independently.

Three full-day observations of the Project GOAL advisor were conducted for each of the 2 years, including both adherence of checking and connecting and implementation quality. Adherence was coded by checking on implementation of the five identified checking and connecting tasks (e.g., checked student data to determine risk status for all students). Implementation quality was coded by rating each of the performance indicators (e.g., connecting: commitment) on a 4-point Likert-type rating scale ranging from 1 (*not observed*) to 4 (*observed*, *excellent*). Global observation implementation quality was coded on a 7-point Likert-type scale ranging from 1 (low) to 7 (high). Adherence to checking and connecting was above 95% completion rate during each observation. Overall ratings showed that the quality of the daily implementation was 3.8 and the global observation quality of implementation was above 6 points; indicating high levels of fidelity of implementation. Inter-rater agreement for year 1 was above 90% during each observation.

Group session fidelity was coded during full-length group session meetings ($N = 3$ per each year). Either the principal investigator or project director was present at each group session meeting to informally observe the lesson and advise when adjustments to the curriculum and instruction needed to be made. The normative model for group sessions reflected the four primary components of each lesson: setting a purpose, presenting the lesson (e.g., problem solving), reflecting on or setting goals, and motivation. A 4-point Likert-type scale ranging from 1 (*low*) to 4 (*high*) was used to assess the extent to which the Project GOAL advisor adhered to the normative model. The global quality of implementation was also recorded, which included students' active engagement during each session component. Overall, adherence to the normative model was 3.5, the quality of the daily implementation was 3.7 out of 4, and the global observation quality of implementation was above 6 points out of 7, demonstrating high levels of fidelity of implementation for the group sessions. Inter-rater agreement for year 1 was above 90% during each observation.[1]

Measures

Trained project staff conducted pretesting during the first month of school and posttesting during the last month in years 1 and 2 of the intervention. The measures related to engagement included the Student Engagement Instrument (Appleton & Christenson, 2004) and the Student Dropout Risk Inventory (M. Vaughn, Roberts, Wexler, & Fall, 2011), which is under development. These measures assess feelings regarding academic success as well as social and emotional issues, such as students' opinions of levels of support from family and peers. Because the purpose of this pilot study was to examine initial program impact to drive future refinement of Project GOAL, we purposefully selected the most proximal, relevant items from these engagement measures for analysis. We also tracked student enrollment status across the 2 years of intervention to determine our ultimate outcome of interest: student dropout status. Note that tracking students' attendance and credit accrual data was not feasible because the district used different methods across the middle and high school to track this data.

Student Engagement Instrument

Our measure of students' perceived relevance of schoolwork to future endeavors included five items from the Student Engagement Instrument (Appleton & Christenson, 2004) that assessed students' perception of the value of school, interest in coursework, and the connection to postsecondary goals: (a) "School is important for achieving my future goals"; (b) "Most of what is important to know you learn in school"; (c) "What I am learning in my classes will be important in my future"; (d) "Learning is fun because I get better at something"; and (e) "My education will create many future opportunities for me." Responses were rated on a 4-point Likert scale ranging from 1 (*strongly disagree*) to 4 (*strongly agree*). Higher scores indicated higher perceived relevance of schoolwork.

Student Dropout Risk Inventory

We used one item from the Student Dropout Risk Inventory (M. Vaughn et al., 2011) to assess students' educational expectations. This item asked students to indicate how far they think they will progress in school. Response options included: (a) less than high school, (b) high school graduation, (c) general educational development degree, (d) college attendance, and (e) college graduation.

Student Enrollment Status at the End of Second Year

In the southwestern state where the study took place, school districts submit student-level information yearly to the state agency. With these data, students can be tracked through the

public education system until they withdraw from the system. We verified the enrollment status of each of our students at the end of the pilot study.

Results

It is important to acknowledge that the outcome data at this point are inconclusive in terms of treatment effect. To the extent that student- and school-level factors co-determine student dropout, changes on more distal indicators (e.g., dropout rates) may be subject to a more lengthy treatment interval (more than 3 years in a given school). Furthermore, this study was powered at the student level, so the effect of school-level factors is not apparent. In addition, the ongoing refinement of the Project GOAL model and the fact that the district's attendance data tracking system varied across the middle and high school during the pilot study obfuscated the findings. However, the 3-year endeavor of implementing Project GOAL has provided key findings and insights into school-level implementation for settings that embrace a long-term commitment to change.

Perceived Relevance of Schoolwork

To examine whether the degree of change in scores of relevance of schoolwork differ depending on students' participation in a dropout prevention intervention (Project GOAL), we fitted a multiple-group linear growth curve model. This model fit the data well ($\chi^2[2] = 1.287$, CFI = 1.00, TLI = 1.00, RMSEA = .00, SRMR = .05). Figure 2 is a line graph that shows growth trajectories for the Project GOAL and comparison conditions. The average growth rates for both the Project GOAL and comparison conditions were negative and not statistically significant ($\beta = -.347$, $SE = .21$, $p > .05$ for Project GOAL condition; $\beta = -.357$, $SE = .212$, $p > .05$, for comparison condition), implying that both Project GOAL and comparison students' perception of the relevance of schoolwork declined and that groups did not differ on average growth rate over time.

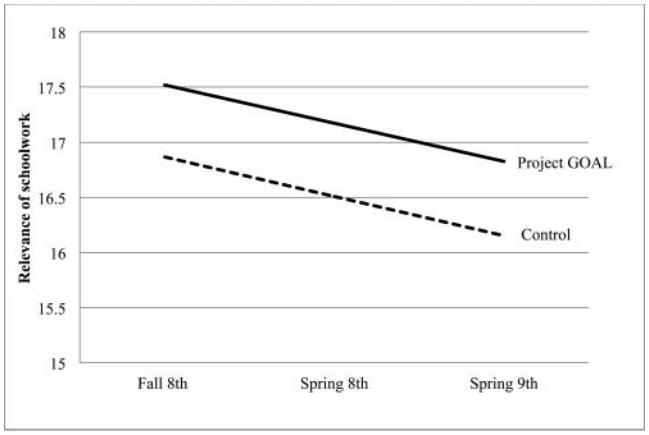

Fig. 2. Perceived relevance of schoolwork.

Future Educational Expectations

When students were asked, "How far in school do you think you will get?" 95% ($n = 19$) of the students in the Project GOAL condition and 69% ($n = 20$) of the students in the comparison condition indicated that they would attend college. An additional 31% ($n = 9$) of the participants in the comparison condition indicated that they would pass the General Educational Development test or earn a high school diploma. Results from this item in the Student Dropout Risk Inventory indicated that students in the Project GOAL condition had significantly higher educational expectations than students in the comparison condition ($\chi^2[2] = 8.67$, $p < .05$). Note that one student in the comparison condition refused to participate in posttesting and one student in the Project GOAL condition and one in the comparison condition were absent during posttesting (see Table 4).

Enrollment Status at End of Second Year

At the end of the second year of intervention, there were no statistically significant differences between the dropout status of Project GOAL and comparison students. One student from the Project GOAL condition and two students from the comparison condition dropped out of school. In addition, one student in the comparison condition was homeschooled, one student from the Project GOAL condition and one from the comparison condition returned to their home country, and one student from the Project GOAL condition and one from the comparison condition are now deceased.

Discussion

This article describes the development and pilot evaluation of a systematic dropout prevention intervention, Project GOAL, and reports initial findings from the pilot study. We developed Project GOAL with guidance from the Institute of Education Sciences' dropout prevention practice guide (Dynarski et al., 2008) and from interviews with key stakeholders during the first year of this project. When interpreting these results, one should consider the pilot nature of the work and the complexities of measuring engagement in general and the effect of a dropout prevention intervention over a relatively short period of time for students who have likely experienced school disengagement for many years.

We next provide key insights about implementing a systematic dropout prevention intervention for at-risk adolescents. These four key insights can guide researchers when developing, implementing, and evaluating systematic dropout prevention interventions.

Key Insight 1: Assign Adult Advocates and Use a Systematic Data-Tracking System

Recommendations 1 and 2 from the Institute of Education Sciences' practice guide (Dynarski et al., 2008) are to use data systems to support the identification of students at high risk of dropping out and to assign adult advocates to students at-risk of

Table 4. Educational Expectations of Students in Project GOAL and Comparison Conditions

	Project GOAL condition		Comparison condition	
	n	%	*n*	%
Less than high school graduation	1	5	0	0
High school graduation/ GED only	0	0	9	31
Attend college/ graduate from college	19	95	20	69

dropping out. We found these recommendations to be important aspects of the design and implementation of Project GOAL.

A comprehensive data-tracking system that can aid in school- and student-level implementation includes first tracking students' risk indicators to accurately identify students who need intervention and then using this data as ongoing progress monitoring to drive intervention decisions (Dynarksi et al., 2008). With limited resources and the urgency to make a positive impact, schools must allocate resources wisely. In addition, despite the fact that at-risk students typically require individualized intervention to target their needs, we found it necessary to standardize aspects of the intervention by relying on data to ensure systematic delivery of the intervention. To accomplish this systematic delivery, the Project GOAL advisor tracked risk indicators as previously described to inform the nature and amount of intervention students required. By structuring the intervention in this manner, we maintained the individualized nature of the intervention while ensuring systematic delivery based on students' dynamic and various needs. In addition, by standardizing the intervention in this systematic way, we aimed to make the intervention replicable for other adult advocates.

We originally relied on much of the data (e.g., attendance, behavior) in the school data system to identify and track students' needs. However, these data were often lapsed or inaccurate, consequently leaving us with a limited number of reliable outcome measures with which to draw conclusions from. Having an adult advocate personally track student data and respond with individualized interventions was a key feature of this intervention. In addition, the advocate can form relationships with students who otherwise feel disconnected from peers and/or adults associated with school, leading to school disengagement. An adult advocate who can communicate efficiently and effectively with at-risk students, parents, and other staff members regarding student situations is critical to implementing systematic dropout prevention intervention.

Key Insight 2: Peer-Mediated Group Intervention Provides Support and Motivation

Although initial results from this study are not robust, the findings from the Student Dropout Risk Inventory indicate that students in the Project GOAL condition increased their postsecondary educational expectations. Our interpretation is that the peer-mediated group support was potentially motivating to students in Project GOAL who had limited guidance from family members and peers about how to persevere through the secondary grades and pursue a variety of postsecondary options. The peer-mediated group component of the intervention exposed students to postsecondary options through field trips and interactions with cross-age mentors from the local university Latino fraternity and Latina sorority. One Project GOAL student said, "Most of my family members drop out and work at the family restaurant. I had never been to a community college campus or met other students like me who have gone to college." Several young women in the Project GOAL condition said the Latina sorority members inspired them to form their own chapter of the national organization, Latinas Leading Tomorrow, to support peer engagement and involvement in school for girls interested in attending college.

Mentoring and group support are commonly used modalities of intervention to prevent and remediate youth who are at risk for school failure or antisocial behavior by providing meaningful mutual support from peers who have a strong influence on these adolescents (Gitterman & Shulman, 1994; Tolan, Henry, Schoeny, & Bass, 2008). Students with a strong peer network often display greater self-esteem and better adjustment to school, which are critical for students to progress and be successful in school (Berndt & Savin-Williams, 1996). For adolescents, especially those who are at risk, peers often lean on each other for reflection and support (Richman, Rosenfeld, & Bowen, 1998).

Students in Project GOAL may have felt motivated to emulate the success of their peer mentors while being supported by peers who faced similar challenges. Many of the students were receptive to peer feedback, noting how they felt less "different" and more inspired when they saw that other students overcame similar challenges to be successful, which are common social advantages to group-based intervention (Harris & Franklin, 2008).

Key Insight 3: Emphasize the Relevance of School for Reaching Goals

Although it is promising that students had significantly higher educational expectations after participation in Project GOAL, we do not dismiss the finding that many of these students did not see school as a relevant mechanism for achieving their goals. This finding is not only troubling, but also puzzling. How could these students raise their educational expectations but at the same time decrease their perceptions of the relevance of school to achieve their goals?

A great deal of emphasis during GOAL sessions focused on teaching students how to set realistic goals and then reach these goals. However, more intensive one-on-one modeling and guidance from the Project GOAL advisor or a peer mentor on how to set realistic goals and then complete a task analysis to reach these goals in smaller steps may have been beneficial. We interpret these somewhat contradictory

findings as evidence that in addition to exposing students to future possibilities and using cross-age mentors to provide support and serve as role models regarding attainment of these goals, future dropout prevention and school engagement efforts should focus on more frequent explicit instruction in the requirements of college and specific careers. Offering academic tutoring and support to improve students' academic preparedness to experience school success and better understand the relevance of school completion is an intervention component that these students would likely benefit from. Enhancing the intervention by adding time devoted to academic preparedness and postsecondary readiness may help students understand the relevance and necessity of being successful in school to achieve their postsecondary goals. Furthermore, a more frequent exposure and systematically delivered college and career awareness curriculum could lead to greater engagement and motivation to achieve goals aligned with postsecondary aspirations.

Key Insight 4: Motivation and Achievement Do Not Always Correspond

A recurring question about students who struggle academically, behaviorally, and consequently, with engagement in school, is the extent to which they are motivated to succeed and what resources we should devote to intervention. The findings of this study align with those from other studies with similar at-risk students. Despite their poor academic achievement and at-risk status, with the appropriate support (e.g., mentors), many of these students demonstrated motivation and increased expectations for themselves. High expectations do not always correspond with achieving at high levels (McCray, Vaughn, & Neal, 2001). A recently conducted, 3-year response to intervention study with struggling adolescent readers reported a similar finding (S. Vaughn et al., 2012). Students in the most intensive intervention revealed through student interviews a strong motivation to learn and be successful even after demonstrating minimal response to 3 years of intervention (S. Vaughn et al., 2012).

Implications

Intervening with at-risk secondary students and measuring the effects of dropout prevention practices is an area ripe for future research. Although the outcome data from the pilot study were inconclusive in terms of treatment effect, we did glean important insight into the effective implementation of Project GOAL, as well as guidance for future dropout prevention intervention design and evaluation. Evidence from this pilot study, as well as from evaluations and syntheses of other promising dropout prevention interventions (e.g., Dynarski et al., 2008), indicate that it may be efficacious for an adult mentor to target student risk indicator data through systematic intervention with individual students and explore interventions in a peer-mediated group format or smaller learning communities. Although we cannot yet provide longitudinal data on whether these students will graduate from high school, we do have evidence from this pilot study that students in Project GOAL stayed in school and increased their educational expectations.

Especially in light of limited educational resources, more research is warranted regarding where we can make the biggest impact (i.e., individual intervention or peer-mediated group intervention). In addition, more research is necessary regarding ways to impress upon students the importance of school in relation to setting realistic goals and attaining those goals in measurable ways.

Limitations

The most obvious limitations of this project are the pilot nature of the intervention, the relatively small sample, and the arguably short length of the intervention. Because refinement of the intervention was ongoing, we did not finalize the program model until the start of year 2 of the study and were therefore unable to measure fidelity beyond a pilot nature. We refined our fidelity of implementation procedures as we modified and refined the Project GOAL program model and therefore, fidelity of implementation ratings should be interpreted in light of this. In addition, although this 2-year intervention spanned a critical transition for this cohort of students, eighth to ninth grade, we cannot determine whether additional time in the intervention would have resulted in greater gains. Because the intervention continued only through students' ninth-grade year, we are unable to determine the effectiveness of the intervention on the ultimate outcome: high school graduation. Measuring dropout and risk indicator data is challenging given the available standardized measures of engagement (Fredricks, McColskey, Meli, Mordica, Montrosse, & Mooney, 2011) and the ability to collect accurate and timely data from the school system. Although we cast a wide net in terms of participant inclusion criteria, we did not determine whether the effect of the intervention varied because of students' specific inclusion criteria, which would be important for future investigations.

Despite the limited nature of this pilot study, we are encouraged by the initial support and the key insights this intervention provides regarding systematic dropout prevention interventions to engage students in school. Future research endeavors are warranted with larger samples, over longer periods of time, with high levels of fidelity of implementation, and that investigate the most effective and efficient methods of intervention to increase rates of school completion for all students.

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Note

1. Copies of both the daily session and group session fidelity protocols are available by contacting the first author.

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