SREE Spring 2020 Conference Abstract

Title: Impact on Antecedents of Student Dropout in a Cross-Age Peer Mentoring Program

Background/Context: The transition from middle to high school is often marked by increases in absenteeism and disciplinary problems and declines in academic achievement and school engagement. Research shows that students are most vulnerable for dropping out of school during and immediately following their first year of high school; more students fail 9th grade than any other grade and promotion rates between 9th and 10th grade are lower than rates between other grades. These findings suggest there is a window of opportunity to prevent the consequences of disengagement for students who may be on the path towards school dropout by developing interventions that provide targeted support during the transition from middle to high school.

Purpose/Objective/Research Question: Funded through a United States Department of Education Investing in Innovation (i3) development grant, the Peer Connection Study (PCS) investigates the impact of Peer Group Connection–High School (PGC-HS) on student outcomes related to dropout prevention. Designed through an evaluator-practitioner partnership, the PCS involves complementary impact and implementation studies to assess program efficacy as implemented during the grant.

The primary PCS impact study focuses on PGC-HS' effect on students' staying in and progressing through school; exploratory impact analyses focus on how the program works and for whom it is most effective. The implementation study explores the extent to which PGC-HS was implemented as intended and provides context for the impact findings. The present study represents exploratory research related to PGC-HS's potential impact. The research questions driving the current investigation are:
1. What is the impact of PGC-HS relative to class-as-usual on non-academic antecedents of dropout, including social and emotional (SEL) skills (e.g., school engagement, goal-setting, educational outlook) and disciplinary incidents?
2. To what extent are there variations in the above impact estimates?

Setting: Six high schools in rural North Carolina participated in the study; schools were located in Local Education Associations (LEA) eligible for the Rural and Low-Income Schools program (at least 20% of children aged 5-17 served by the LEA are from families with incomes below the poverty line).

Population/Participants/Subjects: In total, 1,532 first-time ninth grade students were enrolled into the impact study during the 2016/17, 2017/18, and 2018/19 school years.

Intervention/Program/Practice: PGC-HS is a school-based cross-age peer mentoring program that supports and eases students' transition from middle to high school. PGC-HS leverages older students to create a nurturing environment for incoming freshmen during this critical transition period. Program components include: 1) ***Stakeholder Team*** of administrators,

faculty, parents/caregivers, and community members; 2) *Faculty Advisor Team* who run the program and teach a daily leadership course; 3) 11th and 12th grade *Peer Leaders* who serve as role models, discussion leaders, and mentors for ninth graders and who work in pairs to *co-lead groups of 10-12 ninth graders* in weekly outreach sessions; 4) an *evidence-based curriculum* where ninth graders participate in activities in supportive environments that enable them to practice academic, social, and emotional skills such as critical thinking, goal-setting, decision-making, conflict resolution, teamwork, and communication.

Research Design: We employed a student-level randomized controlled trial designed to isolate PGC-HS' impact on student-level outcomes. Eligible ninth graders were randomly assigned to either participate in weekly 45-minute peer-led outreach sessions (treatment) or receive class as usual (control). The implementation study assessed the extent to which schools implemented PGC-HS to fidelity.

Data Collection and Analysis: Outcome data were obtained from 1) student-level administrative data received from study schools and 2) a questionnaire administered twice, at the beginning of the ninth-grade school year and during the spring semester after PGC-HS ended. Outcomes were analyzed using a regression model that estimated the effects of PGC-HS while adjusting for relevant covariates and the baseline measure of the outcome (or a proxy). Exploratory analyses assessed whether there were variations to overall treatment effects for particular subgroups and under different fidelity conditions.

Findings/Results: Impact findings indicate that the offer to participate in PGC-HS is associated with improved school engagement and educational expectations as compared to the offer to participate in class as usual. No significant effect on other theoretical antecedents of dropout (e.g., grit, decision-making, disciplinary events) are observed.

Exploratory analyses, conducted for the purpose of providing formative feedback to the PGC-HS developers, suggest that students in the treatment group with negative growth mindset attitudes, low educational expectations, or who are male had reduced disciplinary events compared with similar control students. Implementation findings show study schools implemented PGC-HS with varying degrees of fidelity and that treatment students from schools that offered at least 18 outreach sessions during the school year were less likely to have a disciplinary incident, more likely to be promoted to 10th grade, and scored higher on a decision-making skills scale compared with similar control students.

Conclusions: While primary impact results were null for many hypothesized outcomes, formative results offer insight into the ways PGC-HS has potential to support positive outcomes that may ease the transition into high school for students who are potentially at-risk because they are male, have negative growth mindset attitudes, or have low educational expectations at baseline. Additionally, findings suggest that when schools implement PGC-HS with dosage fidelity, PGC-HS is associated with decreased disciplinary events and increased SEL skills.

From a practical standpoint, this research is a valuable extension of the primary impact study. Findings on the mechanisms of behavior change targeted by PGC-HS provide insight into how the program is working and for whom and whether it is achieving its goals. In areas where PGC-HS does not seem to be "moving the needle," developers plan to utilize study findings to reassess alignment of curricular goals and program theory, make adaptations to the curriculum, and develop strategies for supporting schools to implement the recommended program dosage.

Educators can use information gathered from this type of exploratory research to target their finite resources toward programs that solve a particular area of concern for their school and their students' needs. They can utilize results to justify implementing, sustaining, and/or expanding a particular program; they can also make decisions about whether they should implement complementary intervention(s) to address unmet needs.

References

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Tables and Figures

Figure 1. PGC-HS Logic Model

Logic Model

Inputs

CSS partners with high schools to provide:

- Planning time with a team of site-based school stakeholders
- Training for staff who serve as faculty advisors and stakeholder team coordinators
- On-site technical support/coaching and fidelity monitoring
- Structured, experiential PGC curriculum
- Support from stakeholder team
- Continuous improvement activities

Key Components/Outputs

Stakeholder Team
- Team of 5-8 administrators, faculty, and other school staff that plan together for implementation and sustainability
- Stakeholder team coordinator who supports faculty advisor team, coordinates stakeholder team meetings, and liaises with CSS staff
- 1-day training provided to stakeholder team
- Meets regularly to plan and prepare for successful program implementation and sustainability

Faculty Advisor Team
- Responsible for selecting a team of 16-20 diverse 8th grade students to be peer leaders and serve as positive role models, discussion leaders, and mentors for 9th graders
- Co-run and co-teach daily leadership course for peer leaders
- Participate in 10 days of training
- Participate in on-site coaching

11th/12th Grade Peer Leaders
- Participate in 3-day, 2-night leadership training retreat facilitated by faculty advisors
- Participate in daily credit-bearing (45-minutes, 5 days per week or equivalent) leadership course co-taught by faculty advisor team during regular school hours
- Work in pairs to co-lead and mentor groups of 10-12 9th grade students

9th Grade Program Participants
- Participate in minimum of 18 group mentoring sessions consisting of hands-on activities and simulations in supportive environments where students learn and practice essential academic, social, and emotional skills, including:
  - ◊ 9th Grade Orientation Day (welcome & overview)
  - ◊ Activity Day (5-hour retreat)
  - ◊ Family Night event (evening event with parents/guardians)
  - ◊ Service learning sessions that support meaningful, youth-led community involvement

Mediators

Improvements in SOCIAL AND EMOTIONAL LEARNING SKILLS and Enhanced Student Engagement AS EVIDENCED BY:

- Increased school engagement/attachment
- Increased perception of connectedness among peers
- Increased perception of peer support for academic engagement/achievement
- Increased educational aspirations/expectations
- Increased self-efficacy in peer interactions
- Increased self-efficacy in goal-setting skills
- Increased self-efficacy in decision-making skills
- Increased academic self-efficacy

Student Outcomes

Improved educational & health outcomes as evidenced by:

SHORT-TERM
- Continued school enrollment
- Increased on-time promotion to the next grade level
- Decrease in stress level
- Decrease in anxiety level
- Increase in well-being
- Delay in first-time sex (any type)

LONG-TERM
- Increased on-time high school graduation rates
- Increased college enrollment and job attainment following high school
- Decrease in anxiety diagnoses
- Decreased teen pregnancy