| | |
|---|---|
| **Document Title:** | **A Developmental Study of the Keeping Kids in School Initiative, Final Report** |
| **Author(s):** | **Anthony Petrosino, Ph.D., Trevor Fronius, Ph.D.** |
| **Document Number:** | **305701** |
| **Date Received:** | **December 2022** |
| **Award Number:** | **2017-CK-BX-0018** |

# A Developmental Study of the Keeping Kids in School Initiative

Final Report

**Dr. Anthony Petrosino, PI**

**WestEd**

**Area Director, Justice & Prevention**

**apetros@wested.org**

**Dr. Trevor Fronius, Co-PI**

**WestEd**

**Senior Research Associate**

**tfroniu@wested.org**

**WestEd**

**San Francisco, CA**

**September 2021**

WestEd.org

# Table of Contents

## LIST OF TABLES

## Summary of the Project

WestEd in partnership with Sonoma County Probation Department conducted a developmental research study of an innovative approach to improve school climate and safety and improve attendance among students prone to chronic absenteeism. The *Keeping Kids in School* (KKIS) initiative is a modified wraparound program designed to provide outreach and intensive case management services to students at moderate and high risk for chronic absenteeism within a multi-tiered behavioral supports framework. The current study examined an enhanced version of KKIS that includes a formal school climate and safety component to address Tier 1 whole school intervention and prevention needs by incorporating the *Whole School Climate 360 Assessment* program.

A preliminary evaluation of more than 200 students found that KKIS participants also have behavioral, family, and academic risks that are associated with disengagement, delinquency and potential involvement in the juvenile justice system. A formative evaluation of the program has found promising contextual evidence that the program not only helps to keep kids in school, but school staff perceive positive gains in school climate and safety through informal universal prevention programming provided by case managers within the schools. This study built off these findings to enhance KKIS case management services through a whole school climate action planning process. The current study included a rapid cycle evaluation to refine the enhanced model, and then an impact evaluation of this enhancement using a quasi-experimental study within two school districts with one district assigned to the enhanced KKIS model and the second district assigned to the original KKIS program. The outcomes examined include student-reported perceptions of school climate and connectness, delinquency and victimization, and exclusionary discipline actions.

## Goals and Objectives

 The goal of this project was to develop and test an innovative approach to address overall school climate and safety and improve outcomes for moderate and high-risk youth. This project contributes to the knowledge on what works to engage students in school by improving the school environment. The objectives of the study were to: 1) Develop an enhanced version of the existing Keeping Kids in School initiative with a focus on whole school prevention strategies; 2) implement and collect formative data

on the enhanced program model through rapid cycle evaluations during a developmental period in one school; 3) refine and pilot test the enhance program model in 10 schools compared to 10 schools implementing the original wraparound-only mode; and 4) disseminate the findings to the research and school stakeholder communities.

## Research Questions

The following three research questions guided the outcome study:

1. What is the impact of the enhanced model of the KKIS initiative compared to the original model on reductions in exclusionary discipline?

2. What is the impact of the enhanced model of the KKIS initiative compared to the original model on student victimization and perceptions of school safety?

3. What is the impact of the enhanced model of the KKIS initiative compared to the original model on student perceptions of school climate and connectedness?

The following four questions guided the implementation study:

1. To what extent did treatment schools follow the school climate assessment plan?

2. What were the case managers perceptions of the influence of the whole school prevention strategy combined with the case management role on schools?

3. How does implementation of whole school prevention affect the case manager's role in the school?

4. What whole school prevention approaches were implemented in the comparison schools?

## Research Design, Methods, Analytical and Data Analysis Techniques

This study included both an implementation and outcome evaluation. The study includes two distinct phases of work. The first is a development period to build and refine the new (enhanced) program model at one school, informed by rapid feedback from data-gathering activities. The second is a rigorous quasi-experimental study to examine the impact of the new model as implemented in 10 schools, compared to 10 schools[1] implementing only the original KKIS case management program. The research design, methods, and analysis for the implementation and outcome evaluations are described below.

---

[1] The sample for the outcome study varied by data source as described in the outcome evaluation section below. There were 10 schools in each district that participated in the survey data collection process.

## Implementation Evaluation

The implementation evaluation included two phases: the developmental period and the implementation pilot study.

The development period included planning and implementing the enhanced program model of KKIS in one school to learn about the execution and refine the model. This period was also used to develop measures of fidelity to incorporate in the subsequent pilot study period. The developmental period began at the start of the 2018-2019 school year at one middle school in the treatment district, and included the following activities:

- launch meeting led by WestEd to build common understanding of project goals and activities among all project partners (WestEd, Probation, Community Matters and Seneca);
- WestEd and Probation refined the program logic model and project timeline;
- Seneca staff (case manager and supervisor) continued to develop relationships with staff and students at the school, built a case load of students for case management services at TMS, and provided input, support, and attended the Whole School Climate 360 workshop;
- Whole School Climate 360 Assessment conducted at the school by Community Matters (including staff interviews, review of survey reports, review of policies and procedures, analysis of discipline data and current programs and services);
- Probation and Community Matters provided a school staff overview of WSC360 at the school;
- Observations of the two-day strategic planning meeting at the school facilitated by Community Matters to engage school stakeholders around the findings of the WSC 360 Assessment;
- Development of *A Whole School Climate 360 Assessment to Strengthen and Improve Technology Middle School Climate* report by Community Matters; and
- Focus groups and interviews with school staff and students were conducted by WestEd to gather feedback on the model and process.


The implementation pilot study was conducted from 2019-2020 in two districts. The treatment district implemented the enhanced KKIS model, including the Whole School Climate 360 assessment and workshop. The comparison district implemented the original KKIS model, with mainly case management services offered to students who were identified as at risk for chronic absenteeism across the district. To evaluate the implementation of the KKIS enhanced model compared to the traditional KKIS model, data collection included:

- Observations of selected WSC 360 two-day workshops, fall 2019
- Document reviews of the WSC 360 school reports and school action plans, Spring 2020
- Interviews with district staff, spring 2020
- Interviews with school administrators, spring 2020

- Interviews with partners including Community Matters Staff, Seneca case managers, and Sonoma County Probation staff, spring 2020

*Analysis*

Qualitative interview data was analyzed using Excel. The data was summarized and coded for themes that answered the implementation questions as well as to document the impact of COVID-19 on the final months of implementation (not part of the original implementation evaluation questions). In addition to the interviews, weekly study calls were conducted throughout the project to document implementation, challenges, and successes. These calls included the KKIS project director as well as staff from Community Matters and Seneca throughout the year. This data was used to provide context and document study progress.

## Outcome Evaluation

The primary research questions focus on the impact of the enhanced KKIS program model on school safety and factors of climate that impact student engagement among all students. The outcome study employed a school-level comparison of student self-reported measures of school climate and safety and a student-level matched pairs comparison design with repeated measures to examine exclusionary discipline outcomes. The schools in the treatment district received the *Whole School Climate 360 Assessment* during summer and fall 2019. All schools, including comparison schools, received case management services through the existing KKIS program model throughout the 2019-2020 school year.

The study was conducted in two adjacent school districts located in Northwest California. The sample for the outcome study varied by research question. For RQ2 and RQ3, the research team examined the differences in school-level means between 10 treatment and 18 comparison schools. For RQ1, the research team constructed an elementary school analytic file and a high school analytic file, and then matched students on grade, race, and a baseline measure for discipline experience using a propensity score matching technique[2]. The elementary school sample includes 1,411 treatment students, and 1,422 comparison students across 14 schools. The high school sample includes 1,917 treatment students and 2,533 comparison students across four schools.

The outcomes for this study included school discipline data, and student self-reported measures of violence perpetration (e.g., I push or slap other students.) and victimization (e.g., I am hit or kicked by other students.), and various measures of school climate (e.g., In my school, we talk about how our actions make others feel.), connectedness (e.g., Students my age really care about what happens to me), and safety (e.g., Do you feel safe at school?). Self-report survey data collection for the developmental period occurred in Spring 2018. Baseline data collection for the outcome study occurred in spring 2019. Follow up data collection for the outcome pilot study was delayed due to the COVID-19 pandemic from the spring of 2020 to the

---

[2] Due to a significant imbalance in the representation of middle school (i.e., 7th and 8th grade) schools and students in the initial extant data collection sample, middle school grades were omitted and two analytic files for the outcome study were constructed to examine elementary and high school student outcomes separately.

fall of 2020. In addition to the delay, the survey was administered during remote learning and response rates were considerably lower across schools and particularly in the treatment district as described in the limitations section of this report.

In addition to the self-report data from students, data from the student information systems in both districts. Discipline referral by offense type and resulting discipline actions were also collected through the district student information systems. The districts data files were not consistent in structure and coding, including both demographic and discipline variables. Ultimately, the research team was limited to using grade, race, and discipline action for the purposes of the outcome study.

*Analysis*

As described above, the analytic approach to the outcome study varied by research question. For RQ2 and RQ3, the research team conducted a school-level two-way means comparison test (t-test) to examine differences in student reported experiences related to school climate, connectedness, and safety. For RQ1, the research team examined binary outcomes for the student-level matched sample using a multivariate logistic regression controlling on grade, race, and baseline measures of the outcome with standard errors adjusted for clustering within schools. The data for RQ1 was truncated by date for both the baseline and follow up study period to account for the period when schools closed due to the COVID-19 pandemic. Thus, the data were truncated at March 12th for both the 2018-19 and 2019-20 school years.

## Expected Applicability of the Research

This study contributes to the development of a framework that addresses school climate and safety issues that are a barrier to students attending school, and that ultimately contribute to the school to prison pipeline. The unique aspect of this enhanced KKIS model is that it addresses both the individual needs of chronically absent students with a wrap-around case management approach, while also identifying key universal school climate and safety issues that need to be addressed at the school. By concentrating on both individual students and the climate and safety of the school, the goal of the study was to support all students in a safer and more connected school environment.

Students who are at risk for chronic absenteeism were assigned a case manager to work directly with that student and family to address any needs that are identified and contributing to the student missing school. As we know from the KKIS model alone, in many cases once the needs of the students and family are identified and met through connection with services, the student often returns to school. However, returning a student to a school that does not have a supportive, connected, and safe environment may ultimately lead to a continued cycle of chronic absenteeism for students receiving case management from KKIS while also continuing to push more students into chronic absenteeism. The student level case management approach along with the *Whole School Climate 360 Assessment* at the school is unique and addresses both the health and safety needs of students through treatment and prevention.

The pilot test conducted in this study is a critical first step and offers the potential for further implementation and rigorous test. There is still more to understand about how personnel who provide individualized student services similar to the case manager role in KKIS such as a social worker, school counselor, school psychologist or clinician, or other personnel contribute to and work in collaboration with a whole school climate and safety improvement plan.

## Participants and Other Collaborating Organizations

### Districts, Schools, Students

The study took place across in two districts in one county in Northwest California. The two districts were selected for their diverse populations and needs within schools. The districts average about 40 percent of students who qualify as low socioeconomic status and 35 percent of student who identify as Hispanic/Latino.

### Sonoma County Probation/KKIS

The Probation Department leads the Keeping Kids in School Initiative (KKIS), a multi-agency partnership aimed at re-engaging our most disconnected youth to their education.  Serving select students and schools across Sonoma County, KKIS provides individualized case management and schoolwide technical assistance services to increase student attendance and prevent future entry into the juvenile justice system. (Source : https://sonomacounty.ca.gov/Probation/Juvenile-Division/Keeping-Kids-In-School/)

### Seneca Family of Agencies

Provides Keeping Kids in School case management and technical assistance services to all schools in each district.

### Community Matters

Community Matters is an internationally recognized innovative and thought-leading organization committed to improving the social-emotional climate of our nation's schools and communities. Community Matters provided services related the WSC360 program. (Source: https://community-matters.org/about/mission-history/)

## Changes in Approach from Original Design

The overall study, including the outcome study, required considerable changes from the originally proposed design because of the COVID-19 pandemic and resulting school closures. Most notably, the survey data collected within the study was comprised to the extent to which the research team lacks confidence in the accuracy and reliability of the follow up data. In addition, the administrative data provided for the study varied across districts limiting the number of demographic measures included in the matching procedures. Finally, other internal

(implementation delays) and external (major wildfires that closed schools for extended periods) exogenous factors impacted the overall project, including the duration and intensity of treatment exposure for students in the study.

# Outcomes

## Activities/Accomplishments

- Successful completion of developmental period (phase 1) of the study. During the 2018-2019 school year, a pilot study was completed in one middle school in the treatment district. During this period the enhanced KKIS program model was developed, including the integration of whole School Climate 360 (WSC360) program – a comprehensive school climate appraisal and action plan. Formative data was collected from students, staff, and administrators through interviews and focus groups in Fall 2018 and Spring 2019 to learn about how the WSC360 appraisal is integrated with the existing KKIS management efforts, and to ensure that the integrated model was fully developed prior to the impact study. Lessons learned from this phase informed the implementation of the full study period.

- WSC360 implemented in 10 schools. The results of these workshops included action plans created for each school with goals, activities, and allocated staff assigned to each actvity.

- Changes to the KKIS case manager role for the future. Changes included involvement in more Tier 1 activities at the school, supporting staff with workshops and trainings to support all students and staff and improve school climate and culture.

- Case management completed for 71 students that included 2,319 contacts for service during case management.

## Results and Findings

### Implementation Evaluation Findings

To answer the implementation evaluation questions, interviews were conducted with principals of schools that implemented the WSC360 and KKIS model in CRP. KKIS case managers were also interviewed about their role and how the WSC360 affected their role in whole school prevention. District leadership in the comparison district were also interviewed to understand KKIS implementation throughout the district and what whole school prevention approaches may have been included in the program. Finally, data was also examined from KKIS data management system and the WSC360 action plans to understand the activities and services provided to students in each of these programs.

1. **To what extent did treatment schools follow the climate improvement plan?**

The WSC360 process included a two day in-person workshop that focused on reviewing the school's current school climate data, reviewing research and best practices to improve school climate, and spending time in school teams to create a climate improvement plan. The climate improvement plan was created during the workshop and eventually transferred to a Google Doc and shared with each school. The action plan was meant to be a living document that would be updated over time by the school team.

The climate improvement plan was divided into five categories: organization, staff, students, families, and community. Each category consisted of at least one goal decided on by the school team who attended the WSC360 workshop and based on the current school data that was available to the team. Each goal was outlined with a list of actions or activities to determine completion and measurable outcomes. Each action or activity included a timeline for completion, an assigned leader, resources list, and a determined way to monitor and evaluate. Table 1 gives examples of goals and actions from the schools included in this process.

## Table 1. Example of Climate Improvement Plan's Goals and Actions

| Category | Goal example | Action example |
|----------|--------------|----------------|
| **Organization** | Update school handbook | • Consult with counselor, identify modifications and additions,<br>• ask Community Matters for revision,<br>• provide recommendations to student council and PTA,<br>• translate handbook |
| **Staff** | Increase student connectedness through Stars Project. | • Create stars chart with student names to create intentional actions for teachers to connect with students. |
| **Students** | Increasing student voice by including students in school wide positive office referral announcements | • Continue Friday Positive Office Referral announcements and include students<br>• Email teachers regarding this new idea<br>• Teachers will select one student from primary and intermediate classrooms |

| | | • Student will announce their name and tell a joke |
|---|---|---|
| **Families** | Increase family participation in activities | • ice cream social<br>• science night- (non PTA)<br>• fall festival<br>• family movie night<br>• family dance night<br>• Books and Breakfast<br>• Coffee with Principals<br>• PTA meetings - food & prizes |
| **Community** | Be more vocal in inviting our families and the community to school for events | • Flyers<br>• Hold larger, school-wide event and invite families to watch<br>• Teachers talking with students in the classroom about the events and how parents are welcome to attend.<br>• Invite community members to read and participate in Books and Breakfast<br>• Firefighters come to recess to play with kids<br>• Tutoring |

To understand how principals and staff at treatment schools followed the climate improvement plan, interviews were conducted during January and February 2020. Principals were asked what they have implemented since the WSC 360 workshop in the fall of 2019. Of the 10 principals interviewed, only 3 said they had accessed the action plan on Google Docs following the workshop. It is unclear how much the principals accessed the WSC350 materials. One principal mentioned the report, while others had general comments about the usefulness of either the report or the WSC 360 workshop. Since the workshop, principals who found the report helpful implemented some of the suggested changes. Examples of some changes include:

- Updating their school handbook,
- Addressing school culture (spirit days, students leading morning announcements, encouraging kids of different grades to interact, recognizing students during assemblies, students help plan assemblies),
- Improving staff communications (WhatsApp), and
- Incorporating policy and process changes (managing student tardiness).

Since the workshop, four principals noted that their Whole School Climate 360 team has met again, while two indicated that they have not. Principals whose team did not meet again expressed the desire to do so but have not been successful in organizing a meeting.

The interview asked principals for their feedback on the WSC process including the workshop, report, and ongoing action plan document provided for schools to use following the workshop. There was no uniform response for the usefulness of the WSC process including the workshop, report, or action plan. That is to report, only one principal did not find the report or action plan useful. For principals that responded more positively, they completed the suggestions or action plans within their capacity, with the most common exception being the code of conduct redesign.

Overall, principals felt that the Whole School 360 component positively changed the way that they interacted with their school's climate data. Principals generally valued being able to review the data collected and found opportunities to reflect on them.

Except for one, all principals were excited for the future of the initiative. Overall, the principals were excited about the potential of their school improving - whether that's through continued feedback, data collection, implementing recommendations to get their students involved (e.g., activities, student leaderships), redoing their handbook, increasing positive school climate, and continuing school initiatives.

2. **What were the case managers perceptions of the influence of the whole school prevention strategy combined with the case management role on schools?**

   In addition to principal feedback described above, the KKIS case managers were asked to reflect on how the WSC360 and KKIS enhanced model influenced changes at the schools. Their perceptions of the schools were related to how their role was utilized in the schools which varied from school to school (see more about the case managers role in question 3 below). Two changes across the treatment district were noted by one of the case managers. These included the development of stronger relationships between the case managers and the schools resulting in increased collaboration. The other change was in how the case managers received referrals, with one case manager calling it the smoothest process they have across all the districts they work in. The case manager also noted that the referral process worked well in the comparison district.

   The whole school climate process and workshop also helped the case managers gain more access to some of the previously less engaged schools and gave case managers a chance to engage in school climate data and increase their role to work with the whole school and not only individual students. However, how the schools utilized case managers after the workshop varied. In some schools, they were more involved with helping create universal and positive messaging for schools, working with students beyond their caseload and helping inform the school's action plan. In other schools, the schools continued to utilize them only in a case management role to work with identified students. Unfortunately,

where case managers did start to see the schools utilize them for whole school changes, COVID quickly put those plans on the backburner as schools went remote.

3. **How does implementation of whole school prevention affect the case manager's role in the school?**

To measure the role of the case managers and how the implementation of whole school prevention affected their role, interviews were conducted with the case managers and the case manager supervisor for the treatment schools. It should be noted that these interviews were conducted during COVID-19 lockdown when their role had certainly changed to help schools with remote learning, help students and families with pressing needs and challenges, and step into roles such as helping with technology that they never imagined they would do. However, it was also a lesson on how the connections case managers had with students and families, were helpful during this uncertain time.

In addition, from COVID-19 related role changes, the case managers also reflected on how their role changed because of the implementation of the whole school prevention program (WSC 360). The case managers all agreed their role did change at least in theory of how they want it to look moving forward. Because of the school closures, many of these ideas were not put into practice but were planned for future school years. The case managers also offered suggestions of how the case manager role could have been utilized more in the WSC360 process. Each of these are described below.

Case manager role changes for the future:

- **Understanding school data to inform a technical assistance plan and presenting the plan to districts.** The case managers want to change their role to include more upfront time understanding the school, the climate of the school, attendance issues, and create a plan of where case managers can assist, provide TA, and help include universal prevention activities as part of their work in the school. As one case manager said, "Often climate is our biggest barrier. We can get a student connected to a teacher or classroom, but because across the board climate hasn't been done, hard to maintain progress."
- **Focus on blending schools and mental health.** Schools and mental health are two different systems. How schools work with students and families if very different than from how case managers from a community mental health organization work with students and families. Blending these two systems is a skill and process that the case managers can assist with that ultimately will benefit the students and the schools.
- **Collaboration with schools increases impact of KKIS on school wide prevention.** The case managers found that the more collaboration and involvement they had in schools and their prevention efforts, the more connected they were to the school. This resulted in connections with families and students at every tier of intervention from universal programing to more focused case management. Being involved at every tier helped case managers do their job.

- **Being part of the school in different ways (chaperone, extracurricular activities) results in more connections with students and school.** Case managers found great value in being at schools, having a presence at events and activities, even high fiving kids in the hallway. These actions led to more engagement in both universal prevention and trusted case management services with students and families.

How the WSC360 could be structured to incorporate case managers role in the future:

- **Include KKIS case managers in the WSC360 Workshop presentations.** The case managers were "passive observers" of the WSC360 process in the beginning. They were not involved in data collection, presenting findings at the workshop, or facilitating the action plan development. As the study went on, case managers took on a more active role, but having this from the beginning would have integrated them into the schools and the action plans more smoothly.
- **Include KKIS case managers when presenting the action plans to district and school staff as a partner.** Action plans were presented to the district staff for buy in and endorsement, but case managers were not part of those presentations. The case managers reflected on how important it is for them to be part of those meetings since some of the action items they can facilitate and implement in partnership with the schools.

4. **What whole school prevention approaches were implemented in the comparison schools?**

The KKIS model in the comparison schools was traditionally implemented differently than in the treatment schools, resulting in less work related to school climate. The case manager is at the district level, working with students and families most in need across the district. However, early intervention and more school wide intervention was a new focus during the study period. According to district perceptions, KKIS had the most impact on the students directly enrolled with the program. School wide intervention, data walks, restorative talks was planned but COVID-19 school closures prevented those from being carried through.

With the pandemic school closures, the KKIS case manager did provide support to teachers and administrators across the schools. Before the closures, the case manager was also involved in IEP meetings and SARB meetings for non-KKIS kids, but that stopped when schools closed. One of the greatest successes noted about KKIS in Petaluma was the history and relationship building the case manager has been able to do over the years across all the schools including with administrators, teachers, and staff.

## Outcome Evaluation Findings

As described above, the outcome study was impacted substantially by the COVID-19 pandemic and resulting school closures. Thus, the originally proposed design and research questions were

altered in response. The following sections respond to the primary research questions for the outcome study.

1.   **What is the impact of the enhanced model of the KKIS initiative compared to the original model on reductions in exclusionary discipline?**

To answer RQ1, the study team used a multivariate logistic regression model to examine the prevalency of any exclusionary discipline action and out of school suspensions between the treatment and comparison districts for elementary and high school students separately. Each model included a vector of covariates to control for available demographics (grade and race) as well as a baseline measure of the outcome.

The findings suggest while there are differences in exclusionary discipline experiences between the treatment and comparison students, these differences are not statistically significant. Overall, the odds of treatment district students experiencing exclusionary discipline during the follow up period were reduced for elementary students and increased for high school students relative to comparison district students. Grade level was the only statistically significant

predictor of the outcome suggesting that the odds of experiencing exclusionary discipline increases as students age in elementary school and decline as students age in high school.

## Table 2. Prevalence of any exclusionary discipline among elementary school students

| | Odds ratio | Robust standard error | Statistically Significant |
|---|---|---|---|
| Treatment | 0.86 | 0.38 | - |
| Baseline outcome | 1.08 | 0.80 | - |
| Grade (base 3) | | | |
| 4 | 1.67 | 0.89 | - |
| 5 | 1.47 | 0.64 | - |
| 6 | 2.49 | 1.18 | - |
| White | 0.73 | 0.28 | - |

*- Not Statistically Significant; * < .05; ** < .01; *** <.001*

## Table 3. Prevalence of any exclusionary discipline among high school students

| | Odds ratio | Robust standard error | Statistically Significant |
|---|---|---|---|
| Treatment | 1.65 | 0.51 | - |
| Baseline outcome | 1.69 | 1.73 | - |
| Grade (base 9) | | | |
| 10 | 0.59 | 0.09 | *** |
| 11 | 0.41 | 0.11 | ** |
| White | 0.99 | 0.19 | |

*- Not Statistically Significant; * < .05; ** < .01; *** <.001*

The findings for out of school suspensions were similar that of any exclusionary discipline expeerience described above. The findings suggest while there are differences in exclusionary discipline experiences between the treatment and comparison students, these differences are not statistically significant.  Overall, the odds of treatment district students experiencing exclusionary discipline during the follow up period were reduced for elementary students and

increased for high school students relative to comparison district students. Grade level was the only statistically significant.

---

## Table 4. Prevalence of out of school suspension among elementary school students

|  | Odds ratio | Robust standard error | Statistically Significant |
|---|---|---|---|
| Treatment | 0.95 | 0.52 | - |
| Baseline outcome | 1.57 | 1.22 | - |
| Grade (base 3) |  |  |  |
| 4 | 1.52 | 1.12 | - |
| 5 | 1.23 | 0.66 | - |
| 6 | 1.74 | 1.08 | - |
| White | 0.67 | 0.37 | - |

*- Not Statistically Significant; \* < .05; \*\* < .01; \*\*\* <.001*

## Table 5. Prevalence of out of school suspension among high school students

|  | Odds ratio | Robust standard error | Statistically Significant |
|---|---|---|---|
| Treatment | 1.60 | 0.41 | - |
| Baseline outcome | 2.28 | 2.05 | - |
| Grade (base 9) |  |  |  |
| 10 | 0.61 | 0.09 | *** |
| 11 | 0.44 | 0.13 | ** |
| White | 0.94 | 0.20 |  |

*- Not Statistically Significant; \* < .05; \*\* < .01; \*\*\* <.001*

2.     **What is the impact of the enhanced model of the KKIS initiative compared to the original model on student victimization and perceptions of school safety?**

To answer RQ2, the research team examined school-level differences in means for student self-reported victimization and delinquency durinng the 2019-20 school year. As noted, the survey was administered in fall 2020 due to pandemic induced school closures and the sample vary considerably from the baseline survey sample with only about 10% of the baseline sample in the treatment district completing a follow up survey. Thus, we are providing a comparison at the follow up period only and we do not attempt to make any causal claims through these analyses.

The findings in Table 6 below suggest that the students in the treatment and comparison districts were statistically similar in self-reported delinquency during the 2019-2020 school year; however, students in the treatment district reported victimization significantly lower

compared to the comparison district. Substantively, however, the differences are only about 5 percentage points between groups.

## Table 6. School-level differences in student self-reported delinquency and victimization

|  |  | N | Mean | S.E. | S.D. | 95% C.I. | |
|---|---|---|---|---|---|---|---|
| *Delinquency* | C | 18 | 2.88 | 0.01 | 0.06 | 2.85 | 2.91 |
|  | Tx | 10 | 2.90 | 0.02 | 0.05 | 2.86 | 2.93 |
|  | combined | 28 | 2.88 | 0.01 | 0.06 | 2.86 | 2.91 |
|  | diff |  | -0.02 | 0.02 |  | -0.06 | 0.03 |
| *p > .1* |  |  |  |  |  |  |  |
| *Victimization* | C | 18 | 2.67 | 0.02 | 0.08 | 2.63 | 2.71 |
|  | Tx | 10 | 2.57 | 0.01 | 0.04 | 2.54 | 2.60 |
|  | combined | 28 | 2.64 | 0.02 | 0.09 | 2.60 | 2.67 |
|  | diff |  | 0.11 | 0.03 |  | 0.05 | 0.16 |
| *p< .0001* |  |  |  |  |  |  |  |

3. **What is the impact of the enhanced model of the KKIS initiative compared to the original model on student perceptions of school climate and connectedness?**

To answer RQ3, the research team examined school-level differences in means for student self-reported measures of school climate and connectedness durinng the 2019-20 school year. As noted previously, the survey was administered in fall 2020 due to pandemic induced school closures and the sample vary considerably from the baseline survey sample. Thus, we are

providing a comparison at the follow up period only and we do not attempt to make any causal claims through these analyses.

The findings in Tables 7-13 below suggest that the students in the treatment and comparison districts were statistically similar in all self-reported measures of school climate and connectedness during the 2019-2020 school year.

## Table 7. School-level differences in student self-reported social emotional learning

|  |  | N | Mean | S.E. | S.D. | 95% C.I. | |
|---|---|---|---|---|---|---|---|
| *SEL* | C | 18 | 3.66 | 0.11 | 0.48 | 3.42 | 3.90 |
|  | Tx | 10 | 3.78 | 0.12 | 0.38 | 3.51 | 4.05 |
|  | combined | 28 | 3.70 | 0.08 | 0.44 | 3.53 | 3.87 |
|  | diff |  | -0.13 | 0.18 |  | -0.49 | 0.24 |
| *p > .1* |  |  |  |  |  |  |  |

## Table 8. School-level differences in student self-reported adult support at school

|  |  | N | Mean | S.E. | S.D. | 95% C.I. | |
|---|---|---|---|---|---|---|---|
| *Adult supports* | C | 18 | 3.14 | 0.08 | 0.34 | 2.97 | 3.31 |
|  | Tx | 10 | 3.15 | 0.11 | 0.34 | 2.91 | 3.39 |
|  | combined | 28 | 3.14 | 0.06 | 0.33 | 3.02 | 3.27 |
|  | diff |  | -0.01 | 0.13 |  | -0.29 | 0.26 |
| *p > .1* |  |  |  |  |  |  |  |

## Table 9. School-level differences in student self-reported school connectedness

| | | N | Mean | S.E. | S.D. | 95% C.I. | |
|---|---|---|---|---|---|---|---|
| *Connectedness* | C | 18 | 2.87 | 0.08 | 0.36 | 2.69 | 3.05 |
| | Tx | 10 | 2.95 | 0.07 | 0.23 | 2.79 | 3.11 |
| | combined | 28 | 2.90 | 0.06 | 0.32 | 2.78 | 3.02 |
| | diff | | -0.08 | 0.13 | | -0.34 | 0.18 |
| *p > .1* | | | | | | | |

## Table 10. School-level differences in student self-reported perceptions of rule fairness

| | | N | Mean | S.E. | S.D. | 95% C.I. | |
|---|---|---|---|---|---|---|---|
| *Rule fairness* | C | 18 | 2.91 | 0.10 | 0.41 | 2.71 | 3.11 |
| | Tx | 10 | 3.05 | 0.12 | 0.38 | 2.78 | 3.32 |
| | combined | 28 | 2.96 | 0.08 | 0.40 | 2.81 | 3.11 |
| | diff | | -0.14 | 0.16 | | -0.46 | 0.18 |
| *p > .1* | | | | | | | |

## Table 11. School-level differences in student self-reported empathy

| | | N | Mean | S.E. | S.D. | 95% C.I. | |
|---|---|---|---|---|---|---|---|
| *Empathy* | C | 18 | 2.94 | 0.10 | 0.41 | 2.74 | 3.15 |
| | Tx | 10 | 3.02 | 0.07 | 0.21 | 2.88 | 3.17 |
| | combined | 28 | 2.97 | 0.07 | 0.35 | 2.84 | 3.11 |
| | diff | | -0.08 | 0.14 | | -0.36 | 0.20 |
| *p > .1* | | | | | | | |

## Table 12. School-level differences in student self-reported peer supports at school

|  |  | N | Mean | S.E. | S.D. | 95% C.I. | |
|---|---|---|---|---|---|---|---|
| *Peer support* | C | 18 | 2.24 | 0.06 | 0.26 | 2.11 | 2.37 |
|  | Tx | 10 | 2.27 | 0.04 | 0.13 | 2.18 | 2.37 |
|  | combined | 28 | 2.25 | 0.04 | 0.22 | 2.17 | 2.34 |
|  | diff |  | -0.03 | 0.09 |  | -0.21 | 0.15 |
| *p > .1* |  |  |  |  |  |  |  |

## Table 13. School-level differences in student self-reported self-efficacy

|  |  | N | Mean | S.E. | S.D. | 95% C.I. | |
|---|---|---|---|---|---|---|---|
| *Self-efficacy* | C | 18 | 3.03 | 0.06 | 0.25 | 2.91 | 3.15 |
|  | Tx | 10 | 2.99 | 0.03 | 0.09 | 2.93 | 3.06 |
|  | combined | 28 | 3.02 | 0.04 | 0.20 | 2.94 | 3.10 |
|  | diff |  | 0.04 | 0.08 |  | -0.13 | 0.20 |
| *p > .1* |  |  |  |  |  |  |  |

## Limitations

The most notable limitation of the study, as was the case with so many studies in recent history, were the disruptions brough on by the COVID-19 pandemic. Specifically, the pandemic and resulting school closures upended the impact study and led to postponing survey data collection with students until late fall 2020. Furthermore, most implementation activities were forced to end prematurely and case managers pivoted in their role to support schools around remote learning. In addition to the pandemic, several schools in the treatment district were forced to close for extended time during fall 2019 due to wildfires that caused widespread power outages, which disrupted the implementation workshops schedule and other implementation activities. These disruptions were also coupled with a lag in the case management activities in the treatment district. Taken as a whole, implementation was met

with considerable and unforseeable challenges that diminished the confidence in which the research team can speak to outcomes as a result of the enhanced treatment model.

The study had originally planned to examine subgroup effects for students who experienced case management using the KKIS case management data system; however, only six of the 71 students (8.5%) enrolled in case management were matched in the survey data. Finally, the administrative data provided by districts varied in structure and data elements. The lack of interoperability between data sets led to a smaller number of covariates for matching and control within the quasi-experimental study. While the overall matching procedures were successful and there were no statistical differences between the groups in the limited number of observable factors, it is possible that there are important factors left unaccounted for in the outcome study.

## Conclusion

Despite the limitations and challenges faced in this study, there are key learnings to inform future implementation and research on this emerging model. Integrating a school climate improvement plan with a program like KKIS that includes both universal supports and intensive case management components deserves future exploration. Delays in implementation and the onset of the pandemic did not allow for a full examination of this model. Implementation findings suggest that schools were just beginning to take steps to improve school climate as a result of their action planning. In addition, the KKIS case managers, in some of the treatment schools, were beginning to see their role evolve to support a whole school climate approach as well as continuing to work with individual high need students. System change and integrating school change with outside support from case managers will take more time to develop. Future studies focused on how districts and schools prioritize school climate, universal prevention, safety, and a tiered system of support will contribute to a field of research on improving the social and emotional wellbeing of staff, students, and families.