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**Final Research Report  
for**

**Increasing Safety in High Need Schools  
an Evaluation of Therapeutic Crisis Intervention for Schools**

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## **I. SUMMARY OF THE PROJECT**

### **A. Major goals and objectives**

Cornell University collaborated with a school district (SD) in a medium size city in the Northeastern United States to evaluate the impact of the Therapeutic Crisis Intervention for Schools (TCI-S) in 19 schools (14 elementary and 5 PreK-8). TCI-S is a trauma-informed program that provides school staff with safe, effective and trauma-sensitive skills to manage the emotional and behavioral challenges they encounter in their daily interactions with students. Like half of public school students across the United States, many students served by SD live in poverty putting them at high risk for exposure to trauma and other adverse childhood experiences. These exposures often impair the development of self-regulation and executive function, which manifest in the classroom as inattention, impulsivity, defiance, and conflicts with peers and adults. Teachers need skills and strategies that help them interact with students in ways that promote self-regulation of emotions and behavior. The stability of the classroom and the relationships between students and staff are critical to providing the positive learning experiences that foster academic achievement. These skills are not available through standard teacher training or current approaches to school safety.

The major goals and objectives of the project are to: 1) Evaluate the impact of TCI-S; 2) Determine the mechanisms through which TCI-S influences staff and student outcomes; 3) Identify factors that influence the implementation and student, staff, and school-level outcomes of TCI-S.

### **B. Research questions**

Table 1 lists the specific research questions addressed by objective and data source. Sections I.C and IV.A describe the data sources and specific measures collected in more detail.

**Table 1: Research Questions and Data Sources**

Research Questions	Admin. Data	Student Surveys	Staff Surveys	Fidelity Assessments	Qualitative Interviews
<b>Objective 1: Evaluate TCI-S</b>					
Does TCI-S decrease the number of office disciplinary referrals and suspensions?	X				
Does TCI-S increase student perceptions of safety and overall school climate?		X			
Does TCI-S increase staff perceptions of safety and overall school climate?			X		X
Does TCI-S decrease staff attrition?	X				X
<b>Objective 2: Examine Potential Mechanisms of Change</b>					
Does TCI-S increase staff self-efficacy?			X		X
Does TCI-S increase student and staff perceptions of Authoritative School Discipline?		X	X		X
Does TCI-S increase school connectedness of students?		X			X
<b>Objective 3: Examine Potential Influences on the Impact of TCI-S</b>					
Does organizational health at baseline affect the impact of TCI-S intervention on key outcomes (e.g. office referrals, staff/student perceptions of school climate)?	X	X	X		X
How does the implementation of TCI-S vary across schools (fidelity) and how do these variations affect the impact of TCI-S?	X	X	X	X	X
What factors (programmatic, school, staff, and student) promote or hinder the implementation and the impact of TCI-S?					X

**C. Research design, methods, analytical and data analysis techniques**

To accomplish the objectives, a *randomized waitlist trial* was conducted in 19 schools (14 elementary and 5 PreK-8 in SD), which were randomly assigned to Cohort 1 (n=9) or Cohort 2 (n=10), to evaluate the impact of TCI-S implementation on outcomes listed in Table 1. Figure 1 summarizes the planned design for the implementation and evaluation components of the trial. (As explained in detail in Section III, the COVID-19 pandemic disrupted this trial.)

**Figure 1: Planned Design of the Cluster-Randomized Waitlist Trial**

Calendar Year	2018			2019			2020			2021		
School Year	Spring 2018	2018-2019		2019-2020		2020-2021		2020-2021		Fall 2021		
Time Period	May	Summer	Oct	May	Summer	Oct	May	Summer	Oct	May	Summer	Oct
<b>Intervention Activities</b>												
Cohort 1	TxT	Train	TA	TA		TA	TA					
Cohort 2				TxT	Train	TA	TA		TA	TA		
<b>Evaluation (Measurement Design)</b>												
Cohort 1	S1	I1	S2	S3	I2	S4	S5	I3	S6	S7	I4	
Cohort 2	S1	I1	S2	S3	I2	S4	S5	I3	S6	S7	I4	



TxT = Training of Trainers  
 TA = Technical Assistance Visits  
 S = Staff and Student Surveys  
 I = Staff Interview

***The Intervention.*** The Therapeutic Crisis System for Schools (TCI-S), a manualized, widely used, but previously under-evaluated organizational intervention, promotes a safe school and classroom environment by teaching school staff to use trauma-informed practices to anticipate and de-escalate disruptive behavior, manage aggressive and challenging behavior, and help students learn social and emotional skills. To implement TCI-S, certified TCI-S trainers deliver a 20-28 hour training course to school personnel. Certification as a TCI-S Trainer, updated every two years, requires successful completion of the five-day TCI-S Train the Trainer course. During the TCI-S training, participants learn trauma-informed, developmentally appropriate strategies that they can use to help students develop new responses to their environment and achieve a higher level of social and emotional learning. School personnel learn skills that assess student's aggressive behavior, reduce the potential for counter-aggression, use positive behavioral support techniques, and teach students more adaptive coping strategies. School personnel also developed skills that engage students in meaningful developmental relationships, identify setting conditions and triggers to aggression, assess the individual needs of the students, and apply differential responses and interventions that increase the students' capacity to regulate their emotions.

The organizational component of TCI-S helps school leaders develop and sustain infrastructure to support staff efforts to consistently provide trauma-informed practice and nurture a safe, supportive, and positive school climate. To facilitate implementation of the organizational component, each participating school was eligible to receive six days (three per year) of Technical Assistance (TA) over the course of the two-year period required to implement the TCI-S system. During these TA visits, two Cornell TCI-S Consultants worked closely with

school leaders to guide and facilitate their initial efforts to implement TCI-S. Section IV.A.1 provides detailed summaries of staff training and TA visits.

**The Evaluation.** As noted above, a randomized waitlist trial was conducted in 19 schools (14 elementary and 5 PreK-8), which were randomly assigned to Cohort 1 (n=9) or Cohort 2 (n=10). As depicted in Figure 1, data collection included *student and staff surveys* administered twice (fall and spring) each school year. To help ensure anonymity and participation, staff completed paper surveys distributed in the school. Students completed the surveys in Qualtrics in computer labs in each school. Completing the student survey in Qualtrics allowed SD data personnel to link the student surveys with administrative data on student demographics, enrollment, attendance, achievement, and disciplinary actions via a study-based student ID. Only SD personnel have access to the link between the study ID and the actual SD Student ID. Section IV.A describes the measures collected in the surveys and the available administrative data.

As indicated in the results and findings described below (See Section IV.B), the quantitative data collected requires analytic approaches appropriate for the particular question addressed. In general, the nesting of staff and students within school and across time requires the use of general linear mixed model methods that account for the lack of independent observations.

The evaluation also included an in-depth, *longitudinal qualitative interview* study with school staff recruited from the nine schools (four in Cohort 1 and five in Cohort 2) randomly assigned to the interview component of the study. Qualitative approaches are essential to examining program impacts (Astor, Guerra, & Van Acker, 2010; Greene, Benjamin, & Goodyear, 2001; Plano Clark, 2010) and can help answer summative questions by eliciting client or practitioner perspectives about program impacts not anticipated by investigators (Creswell,



Klassen, Plano Clark & Smith, 2011). Using mixed-method approaches addresses formative questions about possible mechanisms that account for program impacts or critical aspects of program implementation that succeeded or failed, but were not detected within the study's a priori measurement model. The telephone interviews with staff, driven by a semi-structured interview guide, were audio-recorded, transcribed, and redacted of any identifying information. Both cross-sectional and trajectory analytic approaches are underway. The findings that emerge from the longitudinal analyses will help unpack the process of change within the schools during the TCI-S intervention. They will directly complement analyses conducted with quantitative data and represent one significant benefit of mixed-methods evaluation research (Oakley et al, 2006).

Understanding the conditions under which programs work is critical to any intervention trial (Fixsen, Naoom, Blase, Friedman, & Wallace, 2005; Astor, Guerra, Van Acker, 2010; Granger, 2011). Consequently, a *process evaluation* documented intervention dosage, the number and content of TA activities, the fidelity to TCI-S program, and engagement in implementation of TCI-S across schools and time. Training records maintained by SCSD facilitated assessment of training saturation by school. The Cornell Consultants providing the TA documented the date and nature of all their TA activities in a report written about each visit. These reports, shared with each school after the visit to support on-going implementation efforts, were coded to document the types of activities conducted during the TA visits. Once a school began the intervention, the staff survey included items focused on staff attitudes toward TCI-S, the use of TCI-S skills, and the development of structures supporting TCI-S implementation. Finally, the TCI-S 33 item fidelity tool was completed at the end of Years 1 and 2 of the intervention period by the Cornell Consultants for that school, to assess progress toward meeting full TCI-S implementation. The Cornell Consultants also answered three closed form questions

about the engagement of staff and leadership of each school with TCI-S implementation.

Sections IV.A and IV.B below describe analyses of the process evaluation data and its incorporation into outcome analyses.

#### **D. Expected applicability of the research**

TCI-S provides school staff with the skills to consistently incorporate trauma-informed strategies into their daily practice and reduce maladaptive responses and disciplinary incidents and schools with the organizational infrastructure and culture to support staff as the new skills become part of their routine practice. If TCI-S is effective, efforts to improve school safety will align better with the needs of the children who have experienced adverse or traumatic events. With increasing percentages of public school students experiencing trauma, a program that helps teachers and other school staff work more effectively with children whose self-regulation and executive function may be impaired will help improve school safety and climate, as well as the many outcomes linked to those constructs. Determining the mechanisms of change and identifying influences on the implementation and efficacy of TCI-S will facilitate its dissemination, sustainability, and scaling up as well as shedding light on the role of trauma-informed practices in improving students' social and emotional skills and behavior as well as overall school climate and safety. The longitudinal interview study and the process evaluation will illuminate the challenges and barriers to adopting and sustaining trauma-informed practices as school leaders and staff undertake the TCI-S training and implement the practices it promotes.

An advantage of TCI-S as an intervention is its focus on providing school staff with new skills. Implementation of TCI-S does not require any student instructional time and is complementary to social and emotional learning as well as School-Wide Behavioral Support programs. Professional development systems and requirements already in place for teachers may

provide time for the initial TCI-S training and the 6-8 hours of annual refresher training. If so, the primary cost to schools or SDs is sending staff to Cornell University's five-day TCI-S Train-the-Trainer workshops to be certified as TCI-S Trainers. These individuals, in turn, provide direct training for teachers and other school personnel. The re-certification process ensures that both certified Trainers and the direct training participants have opportunities to review and practice existing skills as well as learning new strategies or skills as circumstances change or new populations arrive. The benefits of these skills touch more and more students over the years as school leaders and staff imbed the skills and strategies of TCI-S into their organizational structures and routine practices, respectively.

## **II. PARTICIPANTS AND OTHER COLLABORATING ORGANIZATIONS**

The only organization collaborating with Cornell University in this project was the SD in a medium size city in the Northeastern section of the US. SD personnel at all levels, from the superintendent to frontline staff in the participating schools played a role in the project. Senior district level staff helped plan and facilitate both intervention and evaluation activities. Teachers, teaching assistants, professional support staff, and administrators completed surveys and participated in training activities as well as the implementation of TCI-S.

## **III. CHANGES IN APPROACH FROM ORIGINAL DESIGN; REASON FOR CHANGE**

An unprecedented historical event, the COVID-19 pandemic, upended this group-randomized evaluation of TCI-S. Per state mandate, the SD stopped in-person instruction in mid-March 2020 because of the pandemic. Whether or not in-person instruction would resume was uncertain until mid-May when the state prohibited a return to in-person instruction during the 2019-2020 school year. A hybrid model of instruction utilized during part of the 2020-2021

school year gave special education students priority for in-person learning. Most students, however, participated in school via remote instruction. The SD returned to fulltime in-person instruction in fall 2021.

#### **A. Impact of COVID-19 pandemic on planned intervention activities.**

Fortunately, most staff in both Cohort 1 and Cohort 2 schools completed TCI-S training, a necessary but not sufficient component of implementing TCI-S, prior to the pandemic. TCI-S is an organizational intervention that requires commitment and change in five domains: Leadership and Administrative Support, Social Work and Clinical Services, Supervision and Post Crisis Response, Data-Driven Incident Monitoring and Feedback, and Training and Competency Standards. Support from leadership is essential to obtaining and maintaining buy-in and participation from staff who play a role in the other domains. Social work and clinical staff help to develop and implement individual crisis management plans (ICMPs) for students with special needs or high risk challenging behaviors. Well-developed ICMPs include strategies for preventing, de-escalating, and managing potential high-risk behavior specific to the student. Reflective supervision and post crisis response maintains the necessary focus on the TCI-S crisis management system and provides the necessary support and debriefing for both staff and students following a crisis. Finally, documentation of supervision and training as well as documentation and monitoring of incidents throughout the schools facilitates informed decision-making about individual and organizational practices.

Facilitating leadership and staff buy-in, establishing the infrastructure to support recommended practices, and helping staff incorporate new strategies and skills into their routine practice takes time. Consequently, as depicted in Figure 1 above, the design of our trial included a two-year intervention period for each Cohort of schools. During that two-year period, each

school had access to six one-day TA visits, typically with two Cornell Consultants. These Consultants collaborated with school leaders to establish and guide the development of the organizational systems and supports necessary to implement and sustain TCI-S. The Consultants also provided observation and coaching of classroom teachers and other school staff as needed, helped school leaders and other staff work with teachers to develop plans and practice skills for managing particular types of behaviors or the behavior of particular students. By the end of the second year of intervention, school leaders and staff are more proficient and better able to sustain the practices on their own.

When the SD switched to remote instruction due to the COVID-19 pandemic, the nine schools randomized to Cohort 1 were approaching the end of their two-year intervention period. Seven of the nine schools had utilized five of their six TA visits. The other two schools had either three or four visits. The schools in Cohort 2 were in the first year of their intervention period. Nine of the ten schools had completed two TA visits. The other school had no TA visits.

*Because of the pandemic, none of the participating schools completed the full two-year intervention period without interruption.* In addition, the staff and student surveys scheduled for Spring 2020 could not be completed. Consequently, key outcomes measures were not available at the end of Cohort 1's two-year intervention period.

In addition to the interruption of the two-year TCI-S intervention period, the pandemic and the abrupt change to remote instruction required the full attention and focus of both school and SD leadership and staff. The requirements for providing remote instruction (computer equipment and internet service) and other services (e.g., meals that, for many students, would be provided in school) in a high need urban school setting necessarily overshadowed progress made with establishing the in-school supports and practices required for the implementation of TCI-S.

The opportunity for TA visits resumed in the 19 schools when SD returned to full in-person instruction for the 2021-2022 school year. To facilitate continued focus on and planning for the implementation of TCI-S, the SD added a mandatory 3-hour Assessment and Planning meeting to be attended by each school's principal, the TCI-S trainer, and other relevant staff from each of the 19 schools during July and August, 2021. Cornell Consultants worked with our SD collaborators to develop the agenda and facilitate these meetings. Despite this support from the SD for refocusing on the implementation of TCI-S and resuming the TA component of the intervention (the final visit for the Cohort 1 schools and at least three TA visits for the Cohort 2 schools), most of the 19 schools were unable to fully engage in the implementation of TCI-S post-COVID. The return to full-time instruction presented academic, behavioral, and infrastructure challenges. Only five schools, four from Cohort 1 and one from Cohort 2, scheduled TA visits during the 2021-2022 school year. Even offers to provide consultation with school leaders as well as attending implementation team and/or case review meetings (SIT teams) via virtual platforms was beyond the capacity of most of the 19 schools.

## **B. Technical Assistance during the Pandemic**

During the period of remote and hybrid instruction, we met weekly with our SD collaborators. Discussions focused on the status of instruction in the elementary and K-8 schools and how TCI-S could help improve remote and hybrid instruction as well as facilitating preparation for the eventual return of students to fulltime in-person instruction.

Given the need to continue different types of TCI-S training during the pandemic, we developed three products:

- TCI-S Webinar: Delivering TCI-S Refresher Training Using Live Virtual Platforms. This 3-hour webinar for certified TCI-S trainers had two goals: 1) provide guidance to trainers

on how to deliver the TCI-S curriculum and/or Refresher training using live virtual platforms and 2) allow them to experience the virtual training from the perspective of the participant.

- TCI-S Addendum for Direct Training during the COVID-19 Crisis: Virtual and In-Person Training. This addendum for the TCI-S direct training course outlined ways to achieve the goals and learning objectives of the course by combining virtual, on-the-job assignments, and in-person training.
- TCI-S Update: Delivering Blended (Virtual and In-Person) Direct TCI-S Training. This update focused on preparing TCI-S trainers to deliver direct TCI-S training through appropriate combinations of virtual and in-person training, depending on local pandemic circumstances and the need for certification of staff in physical interventions.

TCI-S requires recertification of TCI-S Trainers every two years. In spring 2020 and spring 2021, Cornell TCI-S Instructors delivered the TCI-S Update to re-certify TCI-S Trainers for Cohorts 1 and 2, respectively. In turn, these SD TCI-S trainers offered TCI-S refresher training to about 750 staff members during the period of remote instruction. These virtual training sessions, which focused on issues of importance during remote instruction and in preparation for the return to in-person instruction, included the following:

- Assessing the Situation and Knowing Ourselves,
- Knowing the Student,
- Self-Care and Emotional Competence,
- Setting Conditions and Being Proactive, and
- Helping Students Feel Safe in the Classroom

### C. Impact of COVID-19 Pandemic on evaluation activities

The staff telephone interviews continued as planned in summer 2020. The interview guide included a new question designed to ascertain whether and how TCI-S skills and strategies may have facilitated remote instruction. No interviews were conducted in 2021. Since staff and students were not in school, the spring 2020, fall 2020, and spring 2021 waves of the staff and student surveys were not completed. Administration of the staff surveys resumed in fall 2021 and spring 2022. Unfortunately, administration of the student survey did not resume after the return to in-person instruction. The students had been completing the surveys through Qualtrics in computer labs in the schools. The SD distributed equipment from the computer labs during the pandemic so all students could participate in remote instruction. The lack of equipment and the on-going challenges of the return to in-person instruction prevented completion of any additional student surveys waves.

In summary, these changes to the intervention and evaluation activities yielded the study design depicted in Figure 2.

**Figure 2: Revised Design of the Trial Given the COVID-19 Pandemic Disruption**

Calendar Year	2018			2019			2020			2021			2022		
School Year	Spring 2018			2018-2019			2019-2020			2020-2021			2021-2022		Fall 2022
Time Period	May	S	Oct	May	S	Oct	May	S	Oct	May	S	Oct	May	S	Oct
District															
Cohort 1	TxT	Train	TA	TA		TA						TA			
Cohort 2				TxT	Train	TA						TA	TA		
Student Surveys	S1		S2	S3		S4									
Staff Surveys (S) and Interviews (I)	S1	I1	S2	S3	I2	S4		I3				S5	S6	I4	

TxT = Training of Trainers  
 TA = Technical Assistance Visits  
 S = Staff and Student Surveys  
 I = Staff Interview





## IV. OUTCOMES

### A. Activities/accomplishments

*Intervention Activities - Training.* Implementation of TCI-S requires personnel from the organization adopting TCI-S to become certified TCI-S Trainers so they can train other staff in the organization. Cornell TCI-S Instructors provided the 3-day direct TCI-S training and the 5-day Train-the-Trainer workshop for 40 individuals (20 in Cohort 1 in Spring 2018 and 20 in Cohort 2 in Spring 2019) selected by SD to become certified TCI-S Trainers. During the summer of each year, these certified TCI-S trainers trained staff – teachers, teaching assistants/aides, and other school staff who worked with students in either the 3-day or the 4-day version of TCI-S. The four-day version of TCI-S, offered primarily to Special Education teachers and selected building-level personnel, includes a continuum of safety interventions and physical management techniques. Most staff completed the 3-day TCI-S training with protective measures but no physical intervention strategies. Table 2 summarizes training and other implementation activities.

**Table 2: Summary of Training and Other Implementation Activities**

	<b>Cohort 1 (9 Schools)</b>	<b>Cohort 2 (10 Schools)</b>
<b># Staff Certified as TCI-S Trainers</b>	20	20
<b># Staff Trained in Participating Schools (Summer before Implementation)</b>	610	579
<b>Total # Staff Trained</b>	875	680
<b>Mean (SD) Training Saturation (% of eligible staff trained)</b>	91%	72%
<b>Total Number of TA Visits</b>	47	19
<b>Average Number of TA Visits per School</b>	5.2	1.9
<b>% of TA Visits with Two Cornell Consultants</b>	87%	79%
<b>Average Number of Activities During TA Visits</b>	3.0	3.5

*Intervention Activities – Technical Assistance.* As noted in Table 2, 66 TA visits were conducted, 47 in Cohort 1 schools and 19 in Cohort 2 schools. Two (or more) Cornell Consultants conducted most TA visits. TA visits typically included three or more activities, with nearly every visit including meetings and discussions, 78% including one or more observation sessions (many of those focused on specific students), 28% including review of documents (e.g.

incident reports, Individual Crisis Management Plans), 17% including coaching, and 9% including refresher training. As described in more detail in Section III.B above, during remote instruction due to the COVID pandemic, TA efforts continued via weekly meetings with SD level staff. The 19 participating schools were already in the intervention phase of the trial, so contamination was not a concern. The goal was to assist the participating schools and the rest of SD in whatever way was helpful during the unprecedented change in the nature of education.

**Evaluation Activities.** Table 3 summarizes the participation of eligible staff in the staff survey. In total, 5,264 staff surveys were completed. Though administered anonymously, the survey included a nine-item self-generated identification code. Efforts to link the staff surveys across wave are underway. Overall, the response rate was about 60% across the nineteen schools and six survey waves. Staff response rates were similar across Cohorts 1 and 2. The response rates were highest for the Spring 2018 and Spring 2019 surveys, when staff were required to turn in the survey envelope as part of their checkout procedures. (Staff had the option of returning the sealed envelope with a blank survey inside.) In the fall, staff surveys were not tied to a particular event (i.e. summer checkout) and response rates decreased by about 20 percentage points.

**Table 3: Staff Participation in the Survey by Wave and Cohort**

		Spring 2018 (Wave 1)	Fall 2018 (Wave 2)	Spring 2019 (Wave 3)	Fall 2019 (Wave 4)	Fall 2021 (Wave 5)	Spring 2022 (Wave 6)
<b>Cohort 1</b>	<b>Average</b>	74%	48%	69%	54%	47%	55%
	<b>Min</b>	46%	32%	45%	12%	23%	0%
	<b>Max</b>	98%	72%	86%	81%	84%	93%
<b>Cohort 2</b>	<b>Average</b>	71%	58%	75%	52%	54%	52%
	<b>Min</b>	51%	28%	55%	27%	36%	0%
	<b>Max</b>	85%	99%	100%	83%	78%	83%

The participating schools were either elementary or PreK-8 schools. Students in third grade or higher were asked to complete the surveys. Only seven schools (three from Cohort 1 and four from Cohort 2) consistently had students complete all four waves of the survey. Two

additional schools in Cohort 2 had students complete three of the four waves. Three other schools had similar numbers of students complete two waves of the survey. In the remaining seven schools that participated in only two waves of the student survey, the number of students completing the survey varied substantially across those waves. In one Cohort 2 school, students only completed the survey during the baseline wave. In total, 5,660 students completed 8,892 surveys. Sixty-four percent of students completed one survey, 18% completed two, 15% three, and 3% completed four surveys.

Table 4 summarizes the number of interviews conducted and the number of respondents who completed three, two, or one interview across the nine schools randomly selected to participate in the interview component. The telephone interviews took place during the summers

**Table 4: The Longitudinal Interview Study**

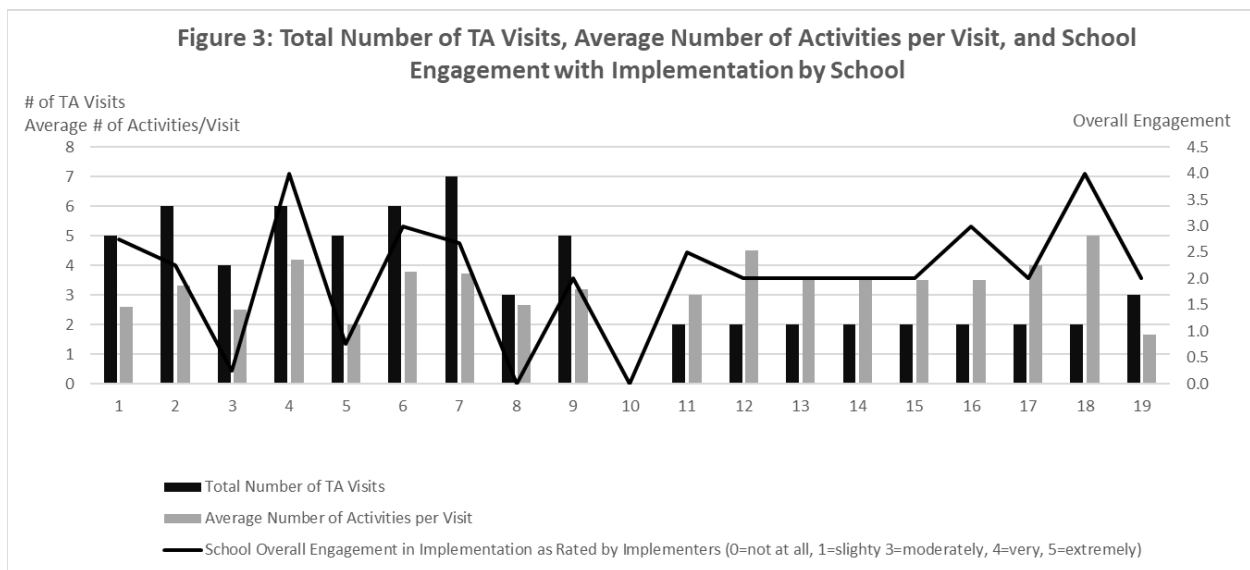
	<b>Total</b>	<b>Cohort 1</b>	<b>Cohort 2</b>
<b>Total # Interviews</b>	102	50	52
<b>Round 1</b>	53	25	28
<b>Round 2</b>	26	13	13
<b>Round 3</b>	23	12	11
<b>Total # of Respondents</b>	53	25	28
<b>With three interviews</b>	18	10	8
<b>With two interviews</b>	13	5	8
<b>With one interview</b>	22	10	12

of 2018, 2019, 2020, and 2022. Note that baseline interviews for staff in Cohort 2 schools were completed in summer 2019.

## **B. Results and findings**

*Intervention - Variation across Schools in Dose.* The dose of intervention varied across schools. Training saturation, the percentage of staff trained prior to the start of the implementation period, varied from 44% to 98% across the nineteen schools. The average training saturation was 91% for Cohort 1 and 72% for Cohort 2. Note that additional training occurred during the school year, but it was limited due to the challenges of pulling staff from their usual activities and/or engaging them in participation outside of school hours.

Figure 3 reports the number of TA visits, the average number of activities completed per visit, and Cornell Consultants' rating of the school's engagement in the implementation of TCI-S by school. During the planned two-year intervention period, each school could participate in six TA visits. The nine Cohort 1 schools, which began the intervention in fall 2018, had time for five of their six planned visits prior to the COVID interruption. All nine of the Cohort 1 schools completed all three TA visits during the first year of their intervention period. In the second year, seven of the nine schools completed two visits prior to the switch to remote instruction, one



school had one TA visit, and one school did not have any TA visits. After the return to in-person instruction, three of the nine Cohort 1 schools completed one additional TA visit and one school had two additional visits. Thus, four of the nine Cohort 1 schools completed six or more TA visits; another three schools completed five visits.

The ten Cohort 2 schools began the intervention period in fall 2019, so at most two of their six visits could be completed before the COVID-19 interruption. Of the ten schools, nine completed both of those TA visits. One school had no visits before or after the pandemic. Only one of the Cohort 2 schools scheduled a TA visit post-pandemic.

The average number of activities per TA visit ranged from two to four across the 19 schools. Across all visits, the mean number of activities per visit in Cohorts 1 and 2 were 3.0 and 3.5, respectively.

At the end of each school year, Cornell Consultants who conducted the TA visits for a school responded to three questions about the engagement of the staff, the leadership, and the school in the implementation of TCI-S on a five point scale ranging from 1=not at all to 5=extremely. Averaging those responses across the Consultants at the end of the 2019 and 2020 school year for each of the nine Cohort 1 schools and at the end of the 2020 school year for the ten Cohort 2 schools provided a measure of each school's engagement in the implementation of TCI-S. As Figure 3 illustrates, despite similarities in the number of TA visits and activities per visit, schools differed in their level of engagement with the implementation of TCI-S as assessed by the Cornell Consultants who worked with that school.

***Intervention – Uptake as reported in the Staff Surveys.*** Each Cohort began the intervention by completing TCI-S Training in the summer (2018 for Cohort 1 and 2019 for Cohort 2). After each Cohort began the training, their staff survey included questions about the uptake of TCI-S. Table 5 summarizes responses to some of these questions for Wave 2 for Cohort 1, Wave 4 for Cohort 2, and Wave 6 for both cohorts.

In the fall after training, almost two-thirds of TCI-S trained staff in both Cohorts reported using Behavior Support Techniques and Active Listening at least once a day. Use of these techniques dropped to about half by Spring 2022. As expected, Emotional First Aid and Crisis Co-regulation were used less frequently, perhaps because the use of other TCI-S strategies and techniques prevented escalation of behavior. The use of Crisis Co-Regulation was the only TCI-S technique whose reported use did not decline in spring 2022. Two-thirds or more of staff

agreed or strongly agreed that because of their TCI-S skills both they and their colleagues could prevent crises from escalating. After training, Cohort 2 staff were more likely than staff in Cohort 1 schools to agree that both they and their colleagues could effectively manage crises. By the Wave 6 survey, staff in the two cohorts reported similar levels of ability to manage crises for themselves and their colleagues. With respect to power struggles, staff had more confidence in their own ability than their colleagues to have fewer power struggles because of their TCI skills.

Another set of questions asked staff about implementation of crisis response procedures in their school. The development of ICMPs was similar across both cohorts and waves with about 45% of staff reporting that ICMPs were frequently or always developed for students who need them. The use of the Life Space Interview after a crisis was reported by about 40% of both Cohort 1 and Cohort 2 staff after training, but it dropped substantially in Cohort 2 schools by spring 2022 (42% to 30%). Similarly, the documentation of incidents dropped substantially between the fall after training and spring 2022 in Cohort 2 (61% to 48%) but remained stable as reported by Cohort 1 staff (54% and 56%). Debriefing with an administrator occurred less frequently than other aspects of crisis response procedures. In Cohort 1, it increased between the fall after training and spring 2022 (31% to 39%) while it declined (37% to 32%) as reported by staff in Cohort 2 schools.

**Table 5: Staff Reports of Uptake of TCI-S Skills and Strategies**

Staff Reports in Survey	Cohort 1 Fall 2018 Wave 2	Cohort 2 Fall 2019 Wave 4	Cohort 1 Spring 2022 Wave 6	Cohort 2 Spring 2022 Wave 6
<b>% Trained</b>	91%	86%	76%	73%
<b>Number Trained</b>	266	323	250	271
<b>Personal use of TCI-S techniques in the past week (% once or more per day)</b>				
Behavior Support techniques	68%	66%	50%	51%
Active Listening	65%	61%	49%	52%
Emotional First Aid	47%	51%	41%	43%
Crisis Co-regulation	35%	37%	35%	34%

Staff Reports in Survey	Cohort 1 Fall 2018 Wave 2		Cohort 2 Fall 2019 Wave 4		Cohort 1 Spring 2022 Wave 6		Cohort 2 Spring 2022 Wave 6	
<b>Because of my TCI-S skills, I/my colleagues can (% agree, strongly agree)</b>								
	I can...	My colleagues can...	I can...	My colleagues can...	I can...	My colleagues can...	I can...	My colleagues can...
Prevent potential crisis situations from escalating	65%	70%	72%	75%	65%	67%	65%	63%
Effectively manage crisis situations that occur	58%	54%	69%	66%	62%	53%	62%	55%
Have fewer power struggles with students	56%	33%	59%	47%	60%	45%	61%	41%
<b>Implementation of Crisis Response Procedures (% frequently or always)</b>								
ICMP developed for student who need it	45%		45%		45%		43%	
A Life Space interview is conducted after a crisis	39%		42%		37%		30%	
An incident report is prepared	54%		61%		56%		48%	
A debriefing session with administrator occurs	31%		39%		37%		32%	

**Intervention – Reactions in the Interviews.** Some interviews showed signals of positive impact of TCI-S in classrooms and schools. Analyses of the rich interview data is ongoing, so it is too soon to report overall themes and patterns. However, as the quotes in Table 6 illustrate, some statements from staff indicated that TCI-S had a positive impact on their capacity to better understand and respond to children's immediate emotional and interpersonal needs, that specific strategies were new to them, and that these strategies helped them prevent and manage behavioral disruptions.

**Table 6: Interview Quotes that Illustrate the Positive Impact of TCI-S**

Role	Quote
<b>Teacher</b>	“After TCIS ... I see a student who’s coping strategy is to fight, I want to replace that with another strategy.... Before I didn’t really think of it like that. For me it was more of a mindset shift. Where I saw TCIS is like, no I’m going to give them something that they’re going to replace these other things with. And the interview part is part of that.” [“interview part” is the Life Space Interview from TCI-S]
<b>Teacher</b>	“... I think that the more you implement TCI-S, the better it’s going to get”
<b>Teacher</b>	“Well, I think for me the biggest benefit from the training is when you're face-to-face with a student having a behavioral challenge, and not taking an aggressive stance, but taking a peaceful, cooperative stance, and acknowledging where the kids are at.”
<b>Administrator</b>	“So the life space interview, listening versus talking. That’s a big one, and I had to be corrected by one of the trainers. She, and it made me mad, right? I was talking too much, and she reminded me, just like, okay, you’re talking too much. You’ve got to shut up. I’m like, okay. So we’re doing a really good job. She’s actually holding us accountable.”

Role	Quote
	“I really believe that we are able to keep more kids in the classroom versus taking them out. So, we are seeing that, and we're seeing very few instances where we really need to ask parents to come get kids. We're dealing with it a little bit better, as far as being able to talk with these life space interviews and really listening to kids.
<b>Administrator</b>	“But this is a kid who's constantly going to push the envelope. And the calmer you remain, the better, you know? ... And that's what we learned from TCI-S. But what the TCI trainers were talking to us about were, really, if you can, try to remain calm and it's going to work out so much better. Oftentimes I think in past, adults have been escalating situations because of our stress and our timeframe and all of that, but when you really look at it, what are you getting from it? ... So it, it's really been eye opening, especially with the TCI people that come in. Allowing us to kind of push back and be, you know, like naysayers, but then we'll just try it. We'll just try it. “
<b>Administrator</b>	“We had one situation where it got really escalated, and we had one of the TCI-S trainers working with us through that, and the child did finally come down...I really believe in TCI-S wholeheartedly, because it has changed how I interact with children”
<b>Teaching Assistant</b>	“I was so grateful that I had that training...I think one of the most important things ... we [the teacher in the classroom and the teaching assistant] look at each other, and we say, “What are you feeling?” and that is really key for me....And that pause gives you a lot of insight, so I think both of us really like the training”
<b>Teacher</b>	“I think there are more teachers that are trying their best to use de-escalation strategies...these kids see so much adverse things that I think sometimes we forget that, and TCI-S does a good job of reminding us about it.”
<b>Teacher</b>	“It created a culture in our building where it’s okay to be like, I’m in a power struggle and I need support...”
<b>Teacher</b>	“I think creating an ICMP is a good idea.”

***Evaluation - Equivalence of the Cohorts.*** To assess the effectiveness of the randomization of the 19 schools to Cohorts 1 and 2, characteristics at the school, staff, and student levels at the start of the study were compared. At the school-level, cohort equivalence tests were run using data from the 2017-2018 school year. Baseline survey data collected during the spring semester 2018 were used for tests at the staff and student levels. The primary outcome variables and other variables that were included as covariates in the statistical models were assessed.

At the staff level, there were no differences between Cohort 1 and Cohort 2 in the distribution of respondent characteristics (position, years at position, years in education, gender, or race). Similarly, the key outcome variables of staff perceptions of student safety, staff



perceptions of their own safety, staff victimization by students, and subsequent distress from that victimization did not vary by Cohort in the baseline survey wave.

At the student level, cohort equivalence tests were complicated by the variation in response rates between schools and between grades within schools. Survey participation rates depended on a number of factors including school leadership advocacy, teachers’ ability to facilitate participation, and students’ willingness to complete the survey. We found significant differences between cohorts on the distribution of survey participants by race, eligibility for free or reduced price lunch, English Language Learner, and grade. However, the two primary student outcomes, the student safety subscale from the Delaware School Climate scale and Student Order, did not vary by Cohort in the baseline survey wave.

At the school level, the schools randomized to Cohorts 1 and 2 did not differ on the percentage of enrolled students on race, gender, eligibility for free or reduced price lunch, English Language Learners, or Individualized Education Plans. Unfortunately, the SD changed its student information management systems for recording office disciplinary referrals (ODR) during the summer of 2018, so student-level ODR data was not provided for the 2017-2018 school year, preventing us from assessing cohort equivalence in the Baseline year. Data from subsequent years suggests that behavior issues that rose to the level of an office disciplinary referral were more prevalent in Cohort 1 than Cohort 2 (See Table 7). For example, over 10% of students in Cohort 1 schools had an ODR compared to 8% or fewer in Cohort 2 schools.

**Table 7: Office Disciplinary Referrals by Time Period and Cohort**

Time Period	Fall 2018		Spring 2019		Fall 2019	
	1	2	1	2	1	2
<b>Cohort</b>						
<b>Number of Students</b>	<b>4624</b>	<b>5568</b>	<b>4523</b>	<b>5509</b>	<b>4815</b>	<b>6060</b>
% of students with any incident	10.5%	6.8%	12.3%	7.6%	10.9%	8.0%
% of Students with L2	9.7%	6.1%	11.3%	6.7%	10.0%	7.2%
% of Students with L3	2.6%	2.0%	3.5%	2.3%	3.7%	2.0%
% of Students with L3 or L4	0.2%	0.1%	0.1%	0.2%	0.3%	0.2%
Mean # of Incidents Among Students with one or more Incidents (Standard Deviation)	3.0 (4.3)	2.6 (3.3)	3.3 (4.1)	2.7 (3.2)	3.5 (4.9)	2.7 (3.2)

*Evaluation - Primary Outcomes.* The primary outcomes of the study included office disciplinary referrals, four measures in the staff survey, and two measures in the student survey. As described in Section III, the disruption of in-person instruction caused by the COVID-19 pandemic and the challenges of returning to fulltime in-person instruction after more than a year of remote instruction irreparably interfered with the implementation of TCI-S and thus a rigorous evaluation of its impact. We have devised strategies to look for signals of effect, but given the disruption of the full implementation of TCI-S any null results are potentially attributable to the lack of full implementation rather than lack of an effect.

The first and third staff and student survey waves provide measures for a basic pre-test post-test group randomized control trial (Shadish, Cook, & Campbell, 2002) for the first year of the planned two-year TCI-S intervention period (see Figure 3). The 19 schools were randomly assigned to Cohort 1 (n=9) or Cohort 2 (n=10). The first wave of student and staff surveys, administered in June 2018, served as the baseline measure. The intervention began with training staff from Cohort 1 schools during the summer of 2018. Intervention activities continued for Cohort 1 schools with TA visits during the 2018-2019 school year. Cohort 2 schools participated in survey data collection during the 2018-2019 school year but engaged in no TCI-S intervention activities during that time, thus serving as a clean control group. The third wave of the staff and student surveys in spring 2019 provided the “post-intervention” measure for Cohort 1, even though the single year of intervention for the Cohort 1 schools represented only half of the necessary intervention period.

To examine the potential impact of TCI-S across the first year of the two-year intervention period, we conducted the following analyses:

- 1) For staff survey outcomes, responses from staff who completed a survey in either Wave 1 or

Wave 3 (N=2,078) were examined for Wave, Cohort, and Wave\*Cohort effects when controlling for individual and school-level characteristics and clustering of responses within schools. (See below for a detailed description of the analytic approach and procedures.)

- 2) Similarly, for staff survey outcomes, only staff who completed a survey in both Wave 1 and Wave 3 and matched exactly on the nine elements of the self-generated identification code (N=199) were examined for Wave, Cohort, and Wave\*Cohort effects when controlling for individual and school-level characteristics as well as within person and school clustering.
- 3) A dose response analysis of staff outcomes included staff in Cohort 1 who completed a Wave 1 and/or a Wave 3 survey (N=960). Cornell Consultant's impression of the school's level of engagement with implementation was substituted for school to serve as a measure of the intensity of engagement of each school with TCI-S implementation.
- 4) For student survey outcomes, responses from students who completed a survey in either Wave 1 or Wave 3 (N=4,266) were examined for Wave, Cohort, and Wave\*Cohort effects when controlling for individual and school-level characteristics and clustering of responses within schools.

These analyses were conducted using IBM SPSS Statistics, version 28. Standard statistics were used to describe the characteristics of students, staff, and schools. Linear mixed models were constructed with fixed and random effects (West, Welch, & Galecki, 2007). The random effects accounted for the clustering of students and staff in schools. (Note that each outcome was assessed separately.) Fixed effects for cohort and wave, particularly the interaction between cohort and wave, assessed the impact of the first year of the TCI-S intervention. Fixed effects also included individual-level and school-level covariates to adjust for any differences between the cohorts.

For each outcome, the modeling began with just the intercept and the random effect for school in order to examine the components of variance. In the next step, an unadjusted model included cohort, wave, and the interaction between cohort and wave. Finally, individual- and school-level covariates were added to the model. Model fit was assessed using  $-2\log$  likelihood ratios, and Akaike information criterion (AIC) adjustments were used to correct for the increasing complexity of the models. Log-likelihood ratio tests, which follow a chi-square distribution, were computed to decide whether the model fit improved at each stage of construction.

As described above, the student surveys were linked across waves because the data was provided with a unique student identification code generated by the SD just for this study. SD also provided demographic, attendance, achievement, and disciplinary information about the student. Anonymous administration of the staff surveys, however, meant that linking the surveys across time relied on a nine-element self-identification code. Linking of the staff surveys across waves continues. At this time, 199 staff members have a rigorously verifiable link between the wave one and three surveys. Consequently, these initial analyses of the staff survey are completed using all available surveys (cross-sectional analyses) and longitudinally using the 199 staff members with surveys in waves one and three.

As we expected, given the truncated intervention period, none of these analyses yielded indications of a significant impact of TCI-S after just one year of intervention. Consequently, Tables 7 and 8 provide the unadjusted means of key staff and student outcomes, respectively, for each survey wave. (Tables 7 and 8 also describe the measures.) For the reasons discussed in Section III, successful implementation of an organizational-level intervention takes time for new procedures to be developed and then fully incorporated as part of routine practice. Consequently,

the lack of indication of an effect of TCI-S after just one year of TA intervention is not surprising and does not preclude establishing the impact of TCI-S when the intervention has been fully implemented.

**Table 8: Staff Perceptions of Their Own and Student Safety by Wave and Cohort**

	Cohort	Spring (Wave 1)	Fall 2018 (Wave 2)	Spring 2019 (Wave 3)	Fall 2019 (Wave 4)	Fall 2021 (Wave 5)	Spring 2022 (Wave 6)
<b>Student Safety<sup>a</sup></b>	<b>1</b>	2.85 (0.55) 441 <sup>b</sup>	2.92 (0.46) 302	2.87 (0.47) 440	2.92 (0.46) 361	2.97 (0.49) 314	2.99 (0.49) 361
	<b>2</b>	2.74 (0.55) 553	2.92 (0.48) 468	2.81 (0.54) 581	2.91 (0.52) 406	2.92 (0.52) 433	2.83 (0.60) 412
<b>Staff Safety<sup>c</sup></b>	<b>1</b>	4.14 (1.03) 440	4.26 (0.92) 302	4.04 (1.01) 456	4.44 (0.93) 352	4.44 (0.97) 318	4.28 (1.01) 362
	<b>2</b>	4.01 (1.07) 540	4.33 (0.99) 462	4.01 (1.04) 597	4.44 (0.93) 402	4.23 (10.3) 433	4.01 (1.01) 401
<b>Staff Victimization<sup>d</sup></b>	<b>1</b>	2.12 (0.77) 444	NA <sup>f</sup>	2.17 (0.88) 378	NA	NA	1.88 (.69) 362
	<b>2</b>	2.13 (0.80) 546	NA	2.01 (0.83) 477	NA	NA	1.83 (.67) 406
<b>Staff Distress<sup>e</sup></b>	<b>1</b>	2.34 (0.86) 398	NA	2.48 (0.90) 351	NA	NA	2.23 (.87) 319
	<b>2</b>	2.38 (0.88) 496	NA	2.43 (0.87) 433	NA	NA	2.33 (.92) 340

a. Student Safety is measured with the Student Subscale of the Delaware School Climate measure for teachers (Bear, Yang, Peli, & Glaskins, 2014).  
b. Each cell reports the mean, (standard deviation), and the number of valid cases.  
c. Staff Safety is measured with the Feelings of Safety scale (Berge & Cornell, 2016).  
d. Staff Victimization is measured with the Student Aggression Toward Staff scale (Berg & Cornell, 2016).  
e. Staff Distress is measured with the Staff Distress from Aggression scale (Berg & Cornell, 2016).  
f. NA indicates that the measure was not asked in this survey wave.

**Table 9: Student Perceptions of Safety by Wave and Cohort**

	Cohort	Spring (Wave 1)	Fall 2018 (Wave 2)	Spring 2019 (Wave 3)	Fall 2019 (Wave 4)
<b>Student Safety<sup>a</sup></b>	<b>1</b>	2.96 (.70) 882 <sup>b</sup>	3.06 (.74) 1517	3.09 (.69) 734	3.11 (.73) 841
	<b>2</b>	2.88 (.75) 1526	2.95 (.78) 924	3.01 (.71) 1114	3.15 (.70) 1317
<b>Student Order<sup>c</sup></b>	<b>1</b>	3.06 (.67) 863	3.05 (.70) 1453	3.03 (.69) 720	3.04 (.72) 823
	<b>2</b>	3.07 (.68) 1481	3.01 (.78) 924	3.06 (.69) 1099	2.97 (.70) 1285

a. Student Safety is measured with the Student Subscale of the Delaware School Climate survey for students (Bear, Gaskins, Blank, & Chen, 2011).  
b. Each cell reports the mean, (standard deviation), and the number of valid cases.  
c. Student Order is measured with the Student Order factor of the CASEL school climate measure as derived by Hung, Luebbe, & Flaspohler (2015).

*Evaluation – Exploratory Analyses.* Two critical pieces of the organizational component of the TCI-S program include developing Individual Crisis Management Plans (ICMPs) for students at risk for challenging behavior and utilizing a robust post crisis response process. For children at high risk of challenging behavior or with special needs, developing and implementing an ICMP is critical to responding appropriately and therapeutically to that student. Well-developed ICMPs includes strategies for preventing, de-escalating, and managing potential high-risk behavior specific to the student. In addition to preparing ICMPs, a robust post crisis response process is crucial to becoming a learning organization that supports staff as they use new strategies and skills for effectively preventing, de-escalating, and managing crises with students. That is, school leaders need to prioritize 1) developing the infrastructure to prepare ICMPs for students at risk of challenging behavior and 2) establishing a robust post crisis response process to ensure that both staff and students learn from challenging situations. These components facilitate preventing and providing more effective responses to potential crises in the future.

To assess the extent to which the components of a crisis response process were in place, a measure of the extent to which the components of a crisis response process were in place was computed from the mean of responses to four questions in the staff survey (see the bottom panel of Table 5). In staff survey waves 2 through 5, the questions in this measure were only asked in individuals who had been trained in TCI-S. In Wave 6, all respondents were asked these four items. The Cronbach's alpha for this measure was .83.

To explore the role that a robust crisis response process may play in staff views about safety in their school, this measure was included in mixed model analyses of the four staff outcomes in two subsets of staff surveys. First, to ensure comparability in the extent of TCI-S

implementation in each cohort, Wave 2 was used for Cohort 1 and Wave 4 was used for Cohort 2 because these were the first surveys to be administered after the major training efforts took place in Cohorts 1 and 2, respectively. Second, the analysis was completed with all Wave 6 respondents because these four questions were asked of all respondents rather than just respondents who had completed the TCI-S training. Staff's perceptions of the extent to which a robust crisis response process is in place in their school is significantly associated with staff's perceptions of the safety of students, their own safety, aggression by students, and the level of distress from aggression from students. The significant effect remained after controlling for school characteristics, staff characteristics as well as staff perception of collective and self-efficacy.

***Other indications of the positive response to TCI-S in the SD.*** The 3-day TCI-S training has become part of the standard 10-day training for new teachers at SD. In addition, the implementation of TCI-S has expanded into schools in the district beyond those that participated in this study. Finally, the SD has contracted with Cornell University for additional TCI-S Train-the-Trainer workshops and technical assistance.

### **C. Limitations**

The major limitation is this study was the disruption in education due to the COVID-19 pandemic. However, challenges that affect many intervention efforts in schools also influenced this study – adequate time for professional development efforts with staff, for school personnel to engage fully with implementation of the intervention, and for staff and students to complete surveys and participate in other evaluation efforts. In addition, as in many organizations, changes in systems for managing administrative data may interfere with the availability of data that is comparable over time.

## V. ARTIFACTS

### A. List of products (e.g., publications, conference papers, technologies, websites, databases), including locations of these products on the Internet or in other archives or databases

The first three products were developed to address the need to continue different types of TCI-S training when SD was using only remote instruction due to the pandemic.

#### 1) **TCI-S Webinar: Delivering TCI-S Refresher Training Using Live Virtual**

**Platforms.** This 3-hour webinar for certified TCI-S trainers had two goals: 1) provide guidance to trainers on how to deliver the TCI-S curriculum and/or Refresher training using live virtual platforms and 2) allow them to experience the virtual training from the perspective of the participant.

#### 2) **TCI-S Addendum for Training During the COVID-19 Crisis: Virtual and In-Person**

**Training.** This training outline is designed to achieve the goals and learning objectives of the TCI for Schools training course by combining virtual, on-the-job assignments, and in-person training.

#### 3) **TCI-S Update: Delivering Blended (Virtual and In-Person) Direct TCI-S Training.**

This update focused on preparing TCI-S trainers to deliver direct TCI-S training through appropriate combinations of virtual and in-person training, depending on local pandemic circumstances and the need for certification of staff in physical interventions

Two presentations at the American Educational Research Association:

#### 1) **Behaviorist Strategies for Behavior Management in Urban Classrooms: School Staff**

**Reflections, Lisa A. McCabe, Sarah McGraw, Charles V. Izzo, Deborah E. Sellers.**

**April 26, 2022, San Diego, CA.** Schools use a variety of strategies and systems to



address challenging student behaviors. This qualitative study explores real-world implementation of behavior management in an urban, high-needs school district. In-depth, semi-structured interviews were conducted with 43 school district staff (teachers, administrators, and support staff) from 9 elementary and K-8 schools. Interview data were coded using an iterative process and analyzed to identify themes. Given the widespread use of strategies and programs with behaviorist elements (e.g. rewards systems), emphasis is placed on examining strategies grounded in behaviorist theory. School staff reflections on the benefits and drawbacks of their current behavior management strategies were presented.

[https://convention2.allacademic.com/one/aera/aera22/index.php?cmd=Online+Program+View+Paper&selected\\_paper\\_id=1893091&PHPSESSID=66aj944hip5a1t7rqcj0bncm7f](https://convention2.allacademic.com/one/aera/aera22/index.php?cmd=Online+Program+View+Paper&selected_paper_id=1893091&PHPSESSID=66aj944hip5a1t7rqcj0bncm7f)

## 2) **Urban School Staff Perspectives on Changes to In-Person Instruction Post-COVID.**

**Lisa A. McCabe, Sarah McGraw, Charles V. Izzo, Deborah E. Sellers. April 16.**

**2023, Chicago, IL.** This study explores how school staff perceive shifts in the educational environment as schools return to full-time, in-person instruction post-COVID. Data are drawn from surveys administered to 538 school staff from 19 elementary and PreK-8 schools in a high need, urban school district. Findings from mixed regression models indicate that school staff considered the academic circumstances and the availability of school personnel to have shown greater change than student behavior. Staff with higher levels of self-efficacy do not consider the changes in student behavior after the return to fulltime instruction to be as severe as staff with lower levels of self-efficacy. Responses to an open ended survey question similarly suggest student academic challenges upon return to full-time in-person instruction.

[https://convention2.allacademic.com/one/aera/aera23/index.php?cmd=Online+Program+View+Paper&selected\\_paper\\_id=2018789&PHPSESSID=ijs3pl6frcn3ta5v0cjmheu0ub](https://convention2.allacademic.com/one/aera/aera23/index.php?cmd=Online+Program+View+Paper&selected_paper_id=2018789&PHPSESSID=ijs3pl6frcn3ta5v0cjmheu0ub)

## **B. Data sets generated**

Two datasets, the staff surveys and the student surveys, have been generated and will be archived at the National Archive of Criminal Justice Data (NACJD).

The staff survey data includes 5,264 records, which represent six waves of survey data completed by staff in the elementary and PreK-8 schools participating in the project. Each survey wave included the Delaware School Surveys for Teachers (Bear, Yang, Peli, & Glaskins, 2014), the Goddard Collective Efficacy scale (Goddard, 2002), and the 12-item version of the Teachers' Sense of Efficacy Scale (Tschannen-Moran & Hoy, 2001). Waves 1, 3, and 6 (surveys administered in the spring) included the Feelings of Safety, Student Aggression Toward Staff, and Staff Distress from Student Aggression (Berg & Cornell, 2016) measures. Waves 1, 2, 4, and 5 (surveys administered in the fall) included the Organizational Health Inventory for Elementary Schools (Hoy, 1991; Mehta, Stkins, & Frazier, 2013). The staff surveys were administered anonymously, but included a nine element self-generated identification code. The process of linking surveys over time is underway. The archived version will include person-level identification numbers that indicate linked surveys.

The student survey data includes the following measures from the Delaware School Surveys: School Climate (Bear, Gaskins, Blank, & Chen, 2011), Use of Positive Behavioral Techniques, Use of Punitive Behavioral Techniques, Use of Social and Emotional learning Techniques (Bear, Yang, Mantz, & Harris, 2017), Student Engagement (Yang, Bear, & May, 2018), and Student Social and Emotional Competencies (Mantz, Bear, Yang, & Harris, 2016). The survey also included the Student Order in the Classroom measure (Hung, Luebbe, &

Flaspohler, 2015). In total, 5,660 students completed 8,892 surveys. Approximately 64% of students completed one survey, 18% completed two, 15% three, and 3% completed four surveys. Student demographic information provided by the SD will be linked to each survey record.

Limited administrative data about the student population in the participating schools will also be archived in conjunction with the staff and student survey data.

The qualitative interview data, which includes 102 interviews from 52 respondents, will be available from the research team by request.

### **C. Dissemination activities**

To date, our dissemination activities included presentations at academic conferences and a presentation scheduled for a practitioner conference (The New York State Center for School Safety Conference, Albany, NY., June 1, 2023). As further analyses are completed and opportunities arise, additional presentations at practitioner and academic conferences will be completed. Four manuscripts for submission to academic and practitioner journals are in progress. Other manuscripts will be developed as additional analyses are completed. Finally, we plan to consult with our SD collaborators to identify opportunities for additional dissemination about the results within the SD and the community.

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