Outcomes and Lessons Learned from a Study of MTSS in Secondary Schools

15th International Conference on Positive Behavior Support, 2018

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The research reported here was supported by the National Institute of Justice through Grant #2014-CK-BX-0015 to Phar-San Juan-Alamo Independent School District and SRI International. The opinions expressed are those of the authors and do not represent views of the National Institute of Justice.
Outline of Presentation

• Background
  – Issues facing a large public school district
  – Description of MTSS *Foundations* program
• Structures for successful implementation
• Study design and outcomes
• Lessons learned/key takeaways
SRI International

• An independent, nonprofit research corporation with headquarters in Silicon Valley, CA
  - Founded in 1946 as Stanford Research Institute
  - Education Division = ~150 staff; 2,000 staff across Institute
    • Focus of behavior research: efficacy and effectiveness trials of school-based interventions
    • Other SRI divisions: computer science, bioscience, technology, robotics
NIJ Comprehensive School Safety Initiative Grant

- In early 2015 the district began implementing the Safe Schools Research Initiative funded through the National Institute of Justice’s *Comprehensive School Safety Initiative*.

- PSJA implemented the Safe & Civil Schools (S&CS) framework, including the *Foundations* program, a primary- or universal-level intervention within a multi-tiered systems of support (MTSS) model.
District Background

3rd largest school district in Rio Grande Valley, Texas

- “High needs” district with over 90% of students classified as underserved
- High number of discipline and violence referrals
- High percentage of students at risk of not graduating
- School climate survey during the 2014-15 school year showed:
  - A quarter of students reported someone threatened to hurt them
  - A third of students reported being grabbed or shoved

- The Safe & Civil Schools *Foundations* and *Start in Time* programs were used to address these issues.
**Foundations Program**

*Foundations* is a program that promotes processes for designing a school wide proactive and positive disciplinary plan and currently implemented in more than 5,000 schools in 49 states.

At PSJA, *Foundations* provided:

- **Tools and strategies to help school staff**
  - Establish proactive, non-punitive school-wide discipline policies
  - Manage student misbehavior
  - Foster student motivation
  - Create a positive and productive school climate

- **Training for the school leadership team**
  - Facilitate planning and in-service sessions for all school staff
  - Enhance data-based problem solving
  - Build capacity for sustainability of the model at the local level

- **Technical assistance**
Using *Foundations* our goals were to:

- Develop guidelines for success and expectations for students
- Ensure consistency in implementation by the staff
- Improve staff’s ability to build positive relationships with students
- Improve student behavior in classroom/common areas
- Improve staff supervisory skills
- Address the social/emotional needs of all students
Six Goals of *Foundations at PSJA ISD*

Goal 1: Develop guidelines for success and expectations for students
- Develop an understanding of acceptable and unacceptable behaviors
- Classroom based and common area expectations
- Ensure that to all students and staff know expectations
  - Posters
  - Daily announcements
  - Mini lessons
- On-going formative reviews for modifications/updates to expectations

Goal 2: Ensure consistency in implementation by the staff
- Training for a select group (Foundations Team)
- Foundation Team members modeled and trained other staff (CLC)
- Principal/Advisor monitor for success (observations/data)
Goals of *Foundations* at PSJA ISD

Goal 3: Increase staff’s ability to build positive relationships with students
- Positive Reinforcement
- Incentive/Reward program
- Creating a welcoming environment in all classroom

Goal 4: Improve student behavior in classroom/common areas
- Focus on common goals and objectives
- Know and understand expectations
- Consider campus needs
  - Tardies
  - Hallway behavior
  - Cafeteria
  - Commons areas (before & after school)
Goals of *Foundations* at PSJA ISD

Goal 5: Improve staff supervisory skills
- Training: Needs and Action Plans
- Communication: Expectations and Formative Reviews
- Consistency in practices (i.e. uniformity in practices)
- Monitoring: Modifications to practices, as needed

Goal 6: Consider the social/emotional needs of all students
- Role of the Counselors (RAC)
- Student Surveys
- Parental Involvement and Support (Champs PLUS)

As part Safe & Civil Schools, we also used *Start On Time*. 
START ON TIME! at PSJA ISD

- START on Time! helps middle and high school administrators and staff improve student behavior in hallways, directly improving school climate.
- Coordinates hallway supervision to help establish and maintain a more civil and academic environment in your campus.
- Implemented at all treatment schools at PSJA ISD.
Foundations and Start on Time were two Safe & Civil Schools programs implemented at PSJA ISD

- **Foundations**: developing process for proactive and positive discipline management
- **Start On Time**: improving hallway transitions and reducing tardiness

In addition, PSJA identified the need for five support structures for successful implementation.
Support Structures Required for Successful Development and Implementation

- Team work
- Internal communication
- Flexibility in implementation
- Administrative support
- Program monitoring
Support Structure 1: Team Work

- Project supervision
- Project management (data collection/review)
- Safe Schools Advisors (1 per campus)
- Foundations teams
- District level management team
- Research advisory committee
- Parental involvement component
Support Structure 2: Internal Communication

• Development
  - Grants and Research Department
  - Campus leaders
  - Parents
  - Community stakeholders

• Implementation
  - Program supervision (daily operations)
  - Program management (data collection)
  - Safe Schools Advisors
  - Campus leaders
  - Parental involvement component
Support Structure 3: Flexibility in Implementation

• Recognize and address the distinguishing factors of each campus

• Distinguishing factors may include:
  - Grade level
  - Enrollment
  - Physical layout of campus
  - Campus Data (ODR, ADA, tardies, observations, STAAR, survey results)

• Example: two alternative campuses at PSJA ISD
  - Ballew ECHS
  - Sotomayor ECHS
Support Structure 4: Administrative Support

- Foundations teams included a principal or assistant principal
- Administrators attended all training sessions throughout initiative
- Administrator was point of contact at each campus
- Advisors were under supervision of each campus principal
Support Structure 5: Program Monitoring

- **Internal**
  - Management team
  - Project director and advisors
  - Research committee
  - Campus principal
  - In-house financial desk audits

- **External**
  - External evaluator
  - Compliance officer
  - Financial audit

- **Goal:** ensure compliance and implementation with fidelity
Study Design and Outcomes
Study Goals

- The NIJ CSSI required an external evaluation of program implementation.
- Assess the effects of implementing *Foundations* in secondary schools.
- Used a mixed methods approach to assess:
  - Student perceptions of school safety, engagement and environment
  - Staff perceptions of school safety and positive climate
  - Behavioral outcomes (e.g., ODRs, suspensions)
  - Academic outcomes (e.g., state test scores)
  - Fidelity of implementation (Schoolwide Evaluation Tool: SET)
Mixed Methods Approach: Quantitative

- Randomized controlled trial (RCT)
  - 8 middle schools and 7 high schools randomly assigned to treatment (i.e., *Foundations* intervention) or the comparison condition (i.e., business as usual)
- Student and staff climate surveys
- Additional outcomes
- Fidelity of implementation (SET)
- Data collected in spring 2015, 2016, and 2017
Student Climate Survey

Adapted version of the MDS3 Student Climate Survey

• **Assessment of Safety**
  - Bullying, aggression, and general drug use
  - Student perceptions of safety and connectedness

• **Engagement**
  - Connection to and support from teachers
  - Culture of equity
  - Parent engagement

• **School Environment**
  - Disorder and physical discomfort

• **Two dichotomous bullying items**
  - Student asked if they have (a) been bullied or (b) seen someone else bullied in the past 30 days
Staff Climate Survey

The School Safety Survey (Sprague, 1996)

- **Risk factors** that relate to violence and poor safety
  - Graffiti
  - Poverty
  - Incidence of bullying, intimidation, harassment
  - Deteriorating condition of the physical facilities in the school

- **Protective factors** that relate to plan to support schools safety
  - Positive teacher-student relationships
  - Parent involvement
  - Student supervision
  - High academic expectations
Additional Outcome Measures

• Behavioral data
  - Attendance rates
  - Tardies
  - Office discipline referrals (ODRs)
  - In school suspensions (ISS)
  - Out of school suspensions (OSS)

• Academic data
  - State of Texas Assessments of Academic Readiness (STAAR): Reading and math scores
Study Participants: Surveys

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<tr>
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<th>Spring ‘16</th>
<th>Spring ‘17</th>
<th>Total</th>
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<td>Students</td>
<td>758</td>
<td>1,805</td>
<td>1,709</td>
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<tr>
<td>Staff</td>
<td>947 (49%)</td>
<td>879 (48%)</td>
<td>924 (50%)</td>
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- Student consent procedures:
  - Spring 2015 - Active Consent
  - Spring 2016, 2017 - Waiver of Documentation

- Staff - all levels within the schools including administrators, teachers, librarians, custodians, etc., asked to participate in the survey
  - Over 70% of respondents were teachers
Student Climate Survey: Outcomes

• Six subscales: No significant differences between Foundations schools and comparison schools at posttest 1 (spring 2016) or posttest 2 (spring 2017).

• Students in Foundations schools reported they were less likely to be bullied in past 30 days than students in comparison schools
  - Spring 2016: 31% less likely to be bullied in past 30 days (p < .05, d = -.23)
  - Spring 2017: 36% less likely to be bullied in past 30 days (p < .05, d = -.27)
Staff Survey: Outcomes

<table>
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<tr>
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<td>tx</td>
<td>comp</td>
<td>tx</td>
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<tr>
<td>Protective factors</td>
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<td>3.10</td>
<td>3.20</td>
<td>3.09</td>
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<td>Risk factors</td>
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<td>2.49</td>
<td>2.36</td>
<td>2.50</td>
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• No significant differences between groups after two years
• After two years, schools in each group significantly increased protective factors and decreased risk factors:

Treatment
• Protective factors p < .01, d = .11
• Risk factors p < .01, d = -.15

Comparison
• Protective factors p < .01, d = .14
• Risk factors p < .01, d = -.26
School Level: Outcomes

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<thead>
<tr>
<th></th>
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<tr>
<td>Attendance (%)</td>
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<td>comp</td>
<td>tx</td>
<td>comp</td>
<td>tx</td>
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<tr>
<td>Tardies (per 100)</td>
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<tr>
<td>Reading*</td>
<td></td>
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<tr>
<td>Math*</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>ODRs (per 100)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ISS (per 100)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OSS (per 100)</td>
<td></td>
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*% of students at or above proficient
School Level: Outcomes

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<tr>
<th></th>
<th>2014-15</th>
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<th>2016-17</th>
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<td>Attendance (%)</td>
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<td>.94</td>
<td>.93</td>
<td>.95</td>
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<td>Tardies (per 100)</td>
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<td>5,187</td>
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<td>Reading*</td>
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<td>48.2</td>
<td>53.6</td>
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<td>Math*</td>
<td>60.0</td>
<td>53.0</td>
<td>62.0</td>
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<td>ISS (per 100)</td>
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<td>7.8</td>
<td>1.2</td>
<td>1.0</td>
<td>.95</td>
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<td>OSS (per 100)</td>
<td>4.9</td>
<td>7.2</td>
<td>7.2</td>
<td>7.9</td>
<td>5.4</td>
</tr>
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*% of students at or above proficient
Fidelity of Implementation: SET Overall Scores

No significant differences

SET summary score

Spring 2015: 32% (All Treatment Schools), 32% (All Comparison Schools)
Spring 2016: 45% (All Treatment Schools), 33% (All Comparison Schools)
Spring 2017: 45% (All Treatment Schools), 26% (All Comparison Schools)
SET Scores by Features: Year 1

- p = 0.03, d = 1.09
- p = 0.01, d = 1.50
SET Scores by Features: Year 2

- 2015 Treatment: p=.02, d=1.46
- 2016 Treatment: p=.01, d=1.16
- 2017 Treatment: p=.01, d=1.80

- 2015 Comparison
- 2016 Comparison
- 2017 Comparison
Mixed Methods Approach: Qualitative

- District and school staff interviews
- Student focus groups
- Documentation of findings using debrief guides
- Researchers compared, contrasted, and synthesized findings during cross-analysis meetings
- Data collected fall 2015, spring 2016, spring 2017
Qualitative Study Participants

- Interview participants included:
  - District administrators
  - Teachers
  - Principals and assistant principals
  - Non-teaching staff (e.g., custodians)
  - Advisors and PSJA project staff
- Students participated in focus groups
- Timing
  - Fall 2015: All schools, 150 interviews, 11 focus groups
  - Spring 2016: Foundations schools only, 33 interviews
  - Spring 2017: All schools, 68 interviews, 15 focus groups
Qualitative Data: Key Findings

Implementation

• Almost all respondents at the Foundations schools reported START on Time! as the main focus of their implementation and one of the greatest successes of Foundations program.

• Throughout the initiative, staff reported the Advisor played an important role in the implementation of the Foundations framework. However, staff continued to struggle to fully understand the role of the Advisor.

• The majority of respondents reported the Foundations training and resource tools were useful in supporting implementation. The school staff appreciated that the training was more individualized in the second year but still expressed the need for more training, specific to their unique campus needs.
Qualitative Data: Key Findings

Communication and buy-in

• Buy-in from school staff was driven both by the success of the program and the engagement of school administrators.
• Successful implementation relied on widespread staff engagement and participation beyond the *Foundations* team, which led to student buy-in for the program.

School safety and climate

• The majority of respondents from both *Foundations* and comparison schools reported positive or improving perceptions of school safety and overall climate from fall 2015 to spring 2017. However, there was a lack of contrast in the perceptions of safety and climate between respondents at *Foundations* and comparison schools.
Qualitative Data: Key Findings

Reward and discipline systems

- *Foundations* schools did not make substantive changes to their schoolwide discipline or rewards systems throughout the initiative, and these systems looked similar across both *Foundations* and comparison schools.

Challenges/barriers

- The specific context of the school impacted implementation, including the physical design of the school, school size, and alternative versus traditional school settings.
- Moving the Advisors to different schools created challenges for many *Foundations* teams.
Lessons Learned: Evaluation Study

• Two years of MTSS implementation may not be enough time to make significant change

• Measurement changes
  - Different/more sensitive measures of school climate
  - Other salient outcome tools
  - Direct observations of staff/student behavior
  - More frequent assessment of factors impacted by MTSS implementation
Lessons Learned: Evaluation Study

• Varied assessments of MTSS fidelity
  – Internal and external fidelity tools
  – Monitor/contain contamination

• Implementing in secondary schools difficult
  – Better implementation at MS than HS
  – Rob Horner “if you can implement in HS you can implement anywhere”

• Implementing in large schools more difficult than smaller schools

• Next steps - developing manuscript, additional dissemination
Lessons Learned: Implementation

- **All stakeholders** should be involved from the development stage
- Ensure all initiatives can be replicated to become part of the **school culture**
- Allow **flexibility in processes**, but ensure consistency in final outcomes
- Be prepared for the **unexpected** (audit, staffing, budgeting)
Next Steps for PSJA ISD

• PSJA ISD will sustain the Safe School Initiative (pending board approval)
  - 8 treatment schools will continue *Foundations* and *Start on Time*
  - 7 non-treatment schools will be included in this cycle
  - In-house training will be developed and conducted on-site for all secondary schools (treatment and non-treatment)
  - Develop introductory phase for elementary schools

• Modification: Customized training
  - Comprehensive needs assessment (priorities)
  - Student/Staff Survey results
  - Staff input
  - Principal’s approval
Questions