



CENTER ON

PBIS

Positive Behavioral
Interventions & Supports

INSTALLING AN INTERCONNECTED SYSTEMS FRAMEWORK AT THE SCHOOL LEVEL:

Recommendations and Examples
to Guide School Leadership
Teams, Practitioners and Coaches

LUCILLE EBER, ERIN SCHERDER, CATHERINE RAULERSON,
DAMA ABSHIER, KELLY PERALES, & MARK WEIST

February 2021



Installing an Interconnected Systems Framework at the School Level: Recommendations and Examples to Guide School Leadership Teams, Practitioners and Coaches

Authors Lucille Eber
Erin Scherder
Catherine Raulerson
Dama Abshier
Kelly Perales
Mark Weist

Introduction

This Practice Guide describes and illustrates how schools, with support from coaches and district/community leaders, can benefit from the integration of school mental health (SMH) supports within the Positive Behavioral Interventions and Supports (PBIS) Framework. District/school leaders and coaches can use this information to support the Interconnected Systems Framework (ISF) for SMH and PBIS. This Guide highlights practical strategies from one school's successful experiences, including indications of the impact on students' success. Specific illustrations include how schools can strengthen their PBIS system by including families and community partners as they apply data-based decision-making to an expanded continuum of social-emotional-behavioral supports. Suggested Technical Assistance strategies for coaches are also provided.



Context

Schools are charged with supporting the diverse needs of all students, while also providing them with an education that leads to a successful transition into college and/or career. Over the past decade, this task has become more challenging as educators struggle to address non-academic barriers to learning, such as anxiety or depression (Merikangas, et al., 2010) and the impact of trauma. Before the challenge of COVID19, schools were becoming more aware of the increased number of students with mental health needs, many of whom were not identified or supported (Weist, et al., 2018). The problems of these students are likely to be intensified by recent events, and schools can expect a much greater number of students to struggle with learning due to mental health challenges, including those experienced by their siblings, friends, parents and teachers (Weir, K. 2020).

The Interconnected Systems Framework (ISF) is a process to create a more streamlined approach to school mental health and wellness while eliminating barriers inherent in systems that previously have operated separately. Specifically, ISF is an example of integration within a PBIS framework, blending PBIS and SMH strengths into a single system of delivery

ISF Key Messages

1. Single System of Delivery
2. Mental Health is for All
3. Access is Not Enough
4. MTSS Features are Essential



focused on prevention and intervention (Barrett, Eber, and Weist, 2013). An initial step towards an ISF is to strengthen family partnerships and expand leadership teams to include community partners as active participants. Using combined school and community data, these interdisciplinary teams select and implement a continuum of evidence-based interventions designed to meet the social-emotional-behavioral (SEB) needs of all students, including those with internalizing mental health needs, such as depression, anxiety and trauma-related. In the same manner that educators monitor academic interventions, implementation of all SEB interventions should be monitored by leadership teams for both fidelity and impact on student outcomes. Professional development and ongoing coaching guide teams through systems development, use of data, and accurate use of practices to focus on sustainability by building the capacity of all staff. The ISF encourages

coaching support from both education and mental health as merging systems require bi-directional communication, coordinated planning, and blended service delivery.

This Practice Guide focuses specifically on effective teaming, active family participation, implementation of evidence-based practices across tiers, and data-based decision-making through on-going coaching. Examples shared are from an elementary school (School A) that participated in a randomized controlled trial, the Project About School Safety (PASS) funded by the National Institute of Justice (please see acknowledgments at the end of this document). The study involved 12 elementary schools in Charleston, SC, and 12 elementary schools in Marion, FL, with one-third of the schools (4 per district) implementing PBIS only, one-third implementing co-located SMH (i.e., no purposeful connection to PBIS), and one third implementing the ISF. Overall major analyses for the study are currently underway, with the first major paper estimated to be completed late in 2020. A summary of the study's methods and measures can be found in Splett, et al. (2018). Preliminary outcome data for this school include decreases in students rated at "extreme risk" and increases in students rated as in the "normal range" for SEB functioning per both student and teacher reports over three years. Additional indications of success include increases in reading and math proficiency across grade levels and concurrent increases in the fidelity ratings of their multi-tiered system of SEB support. This school reached fidelity of the ISF Implementation Inventory (Splett, et al., 2020),

a measure designed to measure interconnected SMH-PBIS functioning across the schools' MTSS.

Practical Application Strategies at the School Level

Strategy 1: Expand Team Membership while Structuring Use of Data

A crucial step in installing ISF is the expansion of existing PBIS leadership teams to enhance the voice of families and include school and community mental health clinicians alongside teachers and administrators (Splett, et al., 2017). In addition to mental health providers, other community partners (e.g. law enforcement, parks and recreation) are often recruited to help problem-solve specific needs. Family and community voice broaden the dialogue around data and design of interventions, thus increasing the options and resources for problem-solving for students with internalizing and externalizing concerns (Perales, et al., 2017). The wider range of perspectives, applied to expanded use of data, is focused on supporting all students from prevention through intensive support.

School A's interdisciplinary team evolved over time, becoming exemplary in team membership, meeting structure, and data use. The team guides the systems, data, and practices across tiers, meeting bi-weekly with designated time allocated on meeting agendas for each tier. This teaming structure resulted in more frequent meetings and more in-depth discussions about the effectiveness of interventions across tiers. The core team included a school administrator, school psychologist, school counselor, school nurse, teacher



representatives, students, parents, and community members (e.g., communities in schools, librarians, school resource officers, and others as relevant to problem-solving). The teams were supported by coaches from both the school district and a partnering mental health agency who supported the team and guided teachers and school staff to provide more specific SEB support in the classroom, facilitate interventions, and reinforce mental health for all.

Family and community representatives, including mental health clinicians, became core team members as the team expanded their data review to include reviewing SEB screening results through a community lens (e.g., unemployment rates, homelessness, crime statistics, involuntary hospitalizations, child welfare involvement, suicide rates, etc.). The diverse team membership brought different perspectives to the problem-solving around support for all students. For example, the team was able to respond to families who were reaching out to the school with concerns about a group of girls observed being hurtful to each other through gossip, exclusion, and verbal aggression. The team decided to adapt lessons from the Tier 1 SEB curriculum to design targeted interventions for teaching emotion management and friendship skills. Self-report data indicated that all students showed improvement in regulating emotions or remained in a positive stable mood over four weeks.

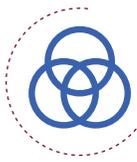
School A's attributes its successes to outstanding principal leadership, high rates of team member participation, meaningful discussions among diverse

team members, and structured problem-solving across the continuum. For example, improved student attendance was an area of focus for School A, so the team developed an attendance-drive intervention led by the Parent Teacher Association (PTA) that encouraged a grade level competition for the highest rate of attendance. Text and recorded phone calls were sent to parents/caretakers with a gift certificate to a local ice cream shop to be drawn. After two years of ISF implementation, tardies dropped from 60% to 20%, and students with unexcused absences reduced from 88% to 35%.

Strategy 2: Ensure Families are Active Partners

Family engagement is a priority in PBIS. Schools can engage families and youth by seeking their perspectives and perceptions, encouraging active participation in various activities, and developing two-way communication and collaboration that leads to shared decision-making (Garbacz, et al., 2017). As schools integrate SMH within PBIS, they can enhance family engagement by providing information about mental health to families, ensuring their awareness of interventions available for students, and how to reach out if they are concerned about their child. Partnering with families to develop plans for students identified as needing additional intervention is also encouraged (Perales, et al., 2017).

At School A, selection of family representation initially started by reaching out to parents/caretakers who were already leading initiatives within the school, parent volunteers who exhibited school knowledge,



and/or parents who previously or currently work in a school setting. Once selected, the family members were encouraged to participate by soliciting their opinions as teams addressed school-wide topics such as attendance, school climate, curriculum choices, etc. The addition of families changed the team's conversation. For example, the interdisciplinary team worked with the PTA president to create a matrix of suggestions for families to engage in "WISE Parenting" that supports their children's success in school (Figure 1). During the meeting, teachers suggested using 'Go to bed at a normal time' in the family matrix; however, parents asked them to define a 'normal time.' Family members on the team also raised questions about appropriate amounts of screen time at home. This type of dialogue resulted in the addition of hyperlinks in

the matrix for parents to access suggested bedtimes, guidance on screen time, and other helpful information.

Adding a family member to the team was pivotal for the team's transition to a truly integrated group as the school and community members recognized the strength of the interventions designed with family guidance. Additional strategies for strengthening family engagement initiated at School A (summarized in Figure 2) included surveys, focus groups, social media use, and information sharing (e.g., key messages, data). An overall result was a dramatic increase in family participation in school activities. For example, PTA membership increased from 35 members in the 2016-2017 school year, to 154 members in the 2017-2018 school year, and 240 members in the 2018-2019 school year.

Figure 1: Be a Wise Parent

	Be A WISE Parent	Arrival	Dismissal	Family Engagement All the Time!
W We are Respectful	I Can: Read the Parent Handbook	I Can: Make sure my child is on time to school at 8:30 am	I Can: Early check-out to be completed before 2:45 pm	I Can: Be an active partner in my child's education Attend <i>PTA meetings</i>
I I Care	I Can: Be sure my child gets enough sleep <i>Sleep Chart</i>	I Can: Make certain my child is able to independently enter the building	I Can: Access my students daily schedule <i>here</i>	I Can: Come to <i>Coffee Chats</i> with the Principal
S Safety Matters	I Can: Lock away medications in the home <i>Secure Medications</i>	I Can: Refrain from blocking the school entrance	I Can: Verify contact and safety information with the school	I Can: Learn about the <i>additional</i> resources available to my student
E Everyone is Responsible	I Can: Review the student <i>WISE Owl Matrix</i> at home	I Can: Know teachers are engaged in learning and honor this time	I Can: Know students are engaged and learning and honor their time	I Can: Speak positively of Pine Hill Monitor my child's <i>Screen Time</i>

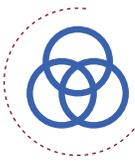


Figure 2: Family Engagement Strategies

Family Voice	Sharing Information	Visuals
<ul style="list-style-type: none"> • Interest surveys • Parent focus groups • Social media (e.g., polls, comments, messaging) 	<ul style="list-style-type: none"> • Informational pamphlets sent home (e.g., school vision and action plan, universal screening data, school report cards, etc.) with data included as much as possible. • Continuum of interventions available and whom to contact for support sent home and posted in the office • A Family PBIS Matrix with strategies for families to use to support their students created with parent input & offered to families in paper and electronic format with hyperlinks. • A shared Google drive established specifically for parents to facilitate bi-directional information sharing between the school and parents. 	<ul style="list-style-type: none"> • Directory posted in the office: pictures of support staff members and their role at the school • Students shared testimonials and pictures through social media with school hashtag relevant to PBIS • Skits performed at PTA meetings on PBIS (What does it mean to be WISE)

Strategy 3: Develop Procedures for Selecting Interventions and Monitoring Progress

Applying MTTs features through teams is a critical step in merging SMH into the PBIS framework. These features include (a) establishing routines and procedures for the team-based selection of evidence-based interventions and (b) progress monitoring fidelity and outcomes of each intervention. School A’s Team expanded its Tier 1 interventions to include a universal SEB curriculum, using data to select specific social-emotional lessons. For example, they began routinely teaching all students emotional regulation and coping skills. As these Tier 1 interventions were provided, the team began discussing and monitoring accuracy (fidelity) and outcomes of school-wide instruction.

Before the start of interventions, teams establish criteria, or decision rules, to determine at which tier(s) specific interventions are needed, the start and end date for interventions, and what data points will be used to assess the fidelity and outcomes of the intervention. The selection of individual SEB interventions at School A became more tailored and

specific to student need, and mental health clinicians began using various tools to assess progress, including check-in-check-out trackers, emotional thermometers, and behavior data. As clinicians began more specific monitoring techniques, some clinicians also began using the school data tracking system for progress monitoring of interventions. These monitoring techniques created greater accountability for SEB interventions, becoming more consistent with how academic interventions are monitored. For example, a mental health clinician providing individual support for a student experiencing anxiety (as demonstrated by frequent absences and withdrawal from social interactions) used attendance as one data point to monitor intervention’s progress.

Before implementing the ISF, intervention decisions at School A were often made in response to isolated discipline incidents rather than systematically using data to determine student needs. Most students presenting with internalizing concerns were overlooked because they were not disruptive (see Weist, et al., 2018). Through professional development and



Core Features of MTSS

1. Effective Teams
2. Data-based decision making
3. Formal processes to select evidence-based practices (EBP)
4. Early Access through comprehensive screening
5. Progress-monitoring for fidelity and effectiveness
6. Professional Development

coaching, teams became more focused using universal data, such as SEB screening data. For example, during a team meeting at School A, a school counselor suggested an anger management group because she heard constant verbal aggression coming from a classroom near her office. At the prompting of the coaches, the team reviewed the universal SEB screening data and determined a more pressing school-wide need to address internalizing concerns. The team developed a Tier 1 intervention to teach coping skills within all classrooms to better meet needs of students with internalizing concerns. Mental health clinicians rotated through the classrooms to support teachers as they taught coping skills lessons. Following observations in the classroom near the counselor's office, the teacher was supported with strengthening consistent use of Tier 1, supplemented with specific de-escalation strategies.

Suggested Next Steps: Technical Assistance for Coaches

The following technical assistance approaches, based on the strengths and progress of School A, are designed to improve student outcomes by a more deliberate application of MTSS features through Tier 2 and Tier 3 teams. These activities and tools can be applied in other schools to build a more systematic team approach at the targeted group and individualized levels. A prerequisite for the advanced technical assistance proposed below is implementation of the PBIS Framework including (a) fidelity at Tier 1, (b) functioning leadership team, (c) coaching expertise, and (d) data systems with capacity to track basic fidelity and outcome data. The technical assistance is intended to produce the following changes in team routines and procedures:

1. More specific descriptions and discussion of interventions, focusing on skills being taught instead of methodology. For example, instead of the student is receiving 'counseling' weekly, the team would indicate a student will receive individualized cognitive behavioral therapy to learn to (a) identify triggers to cutting behavior and (b) engage in a safe replacement behavior when those triggers occur.
2. Determine specifics about how each small group and individualized intervention will be monitored and assessed for fidelity and impact *before* interventions are initiated. For example, if a small group intervention was initiated to respond to families raising concerns about how a specific group of girls are interacting (see Strategy #1 on



page 3), the team would work directly with the families to determine how to assess progress per behavior indicators raised by the families. Perhaps they would create a simple survey for the families to complete before starting the intervention, periodically during the intervention, after the intervention, and again six months later to check for the sustainability of any change.

3. Rather than discussing each student individually at team meetings, teams focus on systems by routinely reviewing the progress of interventions by type/category. For example, “How many students are receiving cognitive behavioral therapy individually? How many of these students respond to the intervention per pre-determined data point/tool for assessing progress?” (Note: For students receiving highly individualized support, their progress should be reviewed in detail at individual student/family team meetings.)

Technical Assistance Activity #1: Conduct an Intervention Inventory

Using the [School Level Intervention Mapping Tool](#),¹ a coach guides the team to list each intervention currently being provided individually to students by either agency or school staff. The status of MTSS features per intervention are identified (e.g., entrance criteria, how impact and fidelity are assessed, percent of students responding, etc.). This will allow teams to discuss and plan how to adjust practices to ensure there is clarity about each intervention (e.g., technique, dosage/frequency, assessment methods, etc.). The coach can guide the team towards improving the match of student need to appropriate intervention

and simultaneously improve the process of selecting evidenced-based interventions.

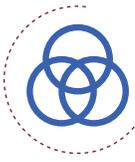
Technical Assistance Activity #2: Create a Routine for Team-Based Intervention Selection

The team adopts a process for selecting evidence-based mental health practices based on students’ specific needs (per data), rather than individual clinicians selecting interventions on their own. Coaches can introduce teams to the [Consumer Guide for Selection of Evidence-Based Mental Health Services](#).²

The examples in this tool illustrate why the selection of interventions needs to be more discerning, linking demonstrated need to specific evidence-based practices. The coach can also use examples from the Intervention Inventory activity (above) and guide team members to structure the consistency of their selection criteria for mental health interventions and services aligned to presenting problems and evidence for probable success.

Technical Assistance Strategy #3: Focus on Systems at Tier 2/3 Team meetings

The coach introduces a routine for team meetings to ensure teams stay focused on systems and overall effectiveness of categories of interventions during the systems meetings. Using the [Tier 2 and Tier 3 Tracking Tool](#),³ the coach can guide the team through a process for rigorous progress monitoring of fidelity and effectiveness. This tool’s use can structure ongoing monitoring of Tier 2 and 3 interventions with a focus on overall intervention effectiveness for all students



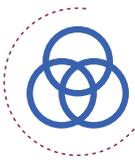
and individual student progress. This tool supports the teams to be prepared to accurately progress monitor the impact and fidelity of each intervention with the determination of these evaluation procedures before starting the intervention. The use of the tool will allow confirmation that evaluation procedures were established and support their ongoing review and problem-solving.

Conclusion

The development of a strong leadership team that includes actively engaged family and community partners is an essential strength of School A's ISF experience. Family voice was a noticeable 'game-changer' as team conversations became more specific, focused, and productive. Over two years, family engagement expanded across all aspects of school functioning, positively influencing student outcomes. School A's team continues to prioritize family engagement strategies as they select and implement new or redesigned interventions with a focus on MTSS features. Another notable strength of the ISF effort in this school was how the team, supported by the co-coaching model (from the school district and collaborating mental health agency), became more confident and competent in their use of data to more accurately identify and address needs.

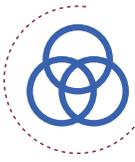
Through the ISF, schools can implement a model that ensures mental health and physical safety through promoting SEB wellness across all tiers by organizing school personnel, community mental health providers, and families through a single team-based leadership structure. Leadership buy-in to support effective teaming, collaboration, and training from coaches that utilize the resources of education and mental health systems, and family and community engagement are all necessary components of an ISF. These components can lead to more effective intervention selection and implementation through data-based decisions across the continuum of tiers 1, 2, and 3 instruction and intervention support. Merging mental health through multi-tiered systems within the school setting through this integrated model leads to positive outcomes for all staff, students, and their families.

We express appreciation to collaborating partners, the Charleston County, South Carolina (SC) School District; the SC Department of Mental Health; the Marion County, Florida (FL) School District, and the Centers. Please note that Erin Scherder (SC), a co-author of this brief, served as a coach for the school discussed in this brief.



References

- Barrett, S., Eber, L. & Weist, M. (2013). *Advancing education effectiveness: interconnecting school mental health and school-wide positive behavior support*. Retrieved from: <https://sites.google.com/a/midwestpbis.org/midwest-pbis-network/interconnected-systemsframework/publications>
- Eber, L., Barrett, S., Perales, K., Jeffrey-Pearsall, J., Pohlman, K., Putnam, R., Splett, J., & Weist, M.D. (2019). *Advancing Education Effectiveness: Interconnecting School Mental Health and School-Wide PBIS, Volume 2: An Implementation Guide*. Center for Positive Behavior Interventions and Supports (funded by the Office of Special Education Programs, U.S. Department of Education). Eugene, Oregon: University of Oregon Press.
- Garbacz, S. A., Herman, K. C., Thompson, A. M., & Reinke, W. M. (2017). Family engagement in education and intervention: Implementation and evaluation to maximize family, school, and student outcomes. *Journal of School Psychology, 62*, 1–10. <https://doi.org/10.1016/j.jsp.2017.04.002>
- Merikangas, K. R., He, J. P., Brody, D., Fisher, P. W., Bourdon, K., & Koretz, D. S. (2010). Prevalence and treatment of mental disorders among US children in the 2001-2004 NHANES. *Pediatrics, 125*(1), 75–81
- National Institute of Justice Award No. 2015-CK-BX-0018, PI Mark D. Weist.
- Perales, K., Eber, L., Barret, S., Quell, A., Ulker, A., & Weist, M. D. (2017). Promoting family engagement in schools through interconnected PBIS and school mental health. In M. D. Weist, S. A. Garbacz, K. L. Lane, & D. Kincaid (Eds.), *Aligning and integrating family engagement in positive behavioral interventions and supports (PBIS): Concepts and strategies for families and schools in key contexts* (pp. 71–83). Center for Positive Behavioral Interventions and Supports (funded by the Office of Special Education Programs, U.S. Department of Education). Eugene, OR: University of Oregon.
- Splett, Joni W., Perales, Kelly, Halliday-Boykins, Colleen A., Gilchrest, Callie E., Gibson, Nicole & Weist, Mark D. (2017). Best Practices for Teaming and Collaboration in the Interconnected Systems Framework, *Journal of Applied School Psychology, 33*:4, 347-368, DOI: 10.1080/15377903.2017.1328625
- Splett, J. W., Perales, K., Al-Khatib, A. M., Raborn, A., & Weist, M. D. (2020). Preliminary development and validation of the Interconnected Systems Framework-Implementation Inventory (ISF-II). *School Psychology 35*(4), 255–266. <https://doi.org/10.1037/spq0000369>
- Splett, J.W., Trainor, K., Raborn, A., Halliday-Boykins, C., Garzona, M., Dongo, M., & Weist, M.D. (2018). Comparison of universal mental health screening and traditional school identification methods for multi-tiered intervention planning. *Behavioral Disorders, 43*(3),344-356.
- Splett, J. W., Perales, K., & Weist, M. D. (2019). Interconnected Systems Framework – Implementation Inventory (ISF-II), Version 3. Unpublished instrument. Gainesville, FL: University of Florida. Weist, M.D., Eber, L., Horner, R., Splett, J., Putnam, R., Barrett, S., Perales, K., Fairchild, A.J., and Hoover, S. (2018). Improving multi-tiered systems of support for students with “internalizing” emotional/behavioral problems. *Journal of Positive Behavior Interventions, 20*(3),172-184.
- Weir, K. (2020). Safeguarding student mental health. *Monitor on Psychology*. <https://www.apa.org/monitor/2020/09/safeguarding-mental-health>
- Weist, M.D., Eber, L., Horner, R., Splett, J., Putnam, R., Barrett, & Hoover, S. (2018) Improving multi-tiered systems of support for students with internalizing emotional/behavioral problems. *Journal of Positive Behavior Interventions, 20*(3), 172-184.



Embedded Hyperlinks

1. <https://drive.google.com/file/d/1-B1PiqYbu7b5QEndfV0xezpZ695-vSyb/view>
2. [https://drive.google.com/file/d/1-tyAEISkxWpu3r0AujBhRaJeilwJLNUL/view?usp=sharing_!!C5qS4YX3!Vao-pRuy3yWVdARF2_42NmHRg--VSqgjVxNfCVI6ouKdsXOM8WBmEsuA6M9Pa9uGww\\$](https://drive.google.com/file/d/1-tyAEISkxWpu3r0AujBhRaJeilwJLNUL/view?usp=sharing_!!C5qS4YX3!Vao-pRuy3yWVdARF2_42NmHRg--VSqgjVxNfCVI6ouKdsXOM8WBmEsuA6M9Pa9uGww$)
3. http://www.midwestpbis.org/evaluation/1352740735_PBISTier23InterventionTrackingTool%20%28%29.xls

This Practice Guide was supported by a federal grant from the National Institute of Justice, Interconnecting PBIS, and school mental health to improve school safety: A randomized trial, #2015-CK-BX-0018, 2016-2020 (M., Weist, Principal Investigator).

This document was supported from funds provided by the Center on Positive Behavioral Interventions and Supports cooperative grant supported by the Office of Special Education Programs (OSEP) and Office of Elementary and Secondary Education (OESE) of the U.S. Department of Education (H326S180001). Dr. Renee Bradley serves as the project officer. The views expressed herein do not necessarily represent the positions or policies of the U.S. Department of Education. No official endorsement by the U.S. Department of Education of any product, commodity, or enterprise mentioned in this document is intended or should be inferred..

Suggested Citation for this Publication

Eber, L., Scherder, E., Raulerson, C., Abshier, D., Perales, K., & Weist, M. D. (February, 2021). *Installing an Interconnected Systems Frame-work at the School Level: Recommendations and Examples to Guide School Leadership Teams, Practitioners and Coaches*. Center on PBIS, University of Oregon. www.pbis.org.