CS 10.08 The Interconnected Systems Framework: Case Study from a Randomized Control Trial

Joni Splett, Kelly Perales, Elaine Miller
Colleen Haliday-Boykins, Mark Weist, and Victoria Rizzardi
“Expanded” School Mental Health

• Full continuum of effective mental health promotion and intervention for students in general and special education
• Reflecting a “shared agenda” involving school-family-community system partnerships
• Collaborating community professionals (not outsiders) augment the work of school-employed staff
Positive Behavior Intervention and Support (www.pbis.org)

• In over 27,000 schools
• Decision making framework to guide selection and implementation of best practices for improving academic and behavioral functioning
  – Data based decision making
  – Measurable outcomes
  – Evidence-based practices
  – Systems to support effective implementation
Outcomes associated with Implementation

**Improved Student Outcomes**
- academic performance (Homer et al., 2009)
- social-emotional competence (Brodshaw, Wassel, & Laef, 2012)
- social & academic outcomes for SWD (Lewis, 2017; Tobin, Horner, Vincent, & Swain-Broadway, 2012)
- reduced bullying behaviors (Ross & Horner, 2009; Wassel, Brodshaw, & Laef, 2012)
- decreased rates of student-reported drug/alcohol abuse (Rossetta, Kittelson, McIntosh, & Houselton, 2015; Brodshaw et al., 2012)

**Reduced Exclusionary Discipline**
- office discipline referrals (Brodshaw, Mitchel, & Laef, 2010; Brodshaw et al., 2012; Horner et al., 2009)
- suspensions (Brodshaw, Mitchel, & Laef, 2010)
- restraint and seclusion (Reynolds et al., 2016; Simonsen, Brittton, & Young, 2010)

**Improved Teacher Outcomes**
- perception of teacher efficacy (Kain & McIntosh, 2012; Ross, Romer, & Horner, 2012)
- school organizational health and school climate (Brodshaw, Koch, Bevans, Isongo, & Laef, 2008; Brodshaw, Koch, Thornton, & Laef, 2009)
- perception of school safety (Horner et al., 2009)

School-Wide Positive Behavior Interventions and Supports

(George, H. 2018)
State of the Carolinas: Implementing School Mental Health and Positive Behavioral Interventions and Supports

by Joni W. Splett, Kurt D. Michael, Christina Minard, Robert Stevens, Louise Johnson, Heather Reynolds, Katharina Farber, and Mark D. Weist*

The Carolinas have a rich and diverse history. South Carolina was the first colony to declare independence from British rule during the American Revolution and the first state to declare secession from the Union at the start of the Civil War. The population of South Carolina is nearly 4.8 million. It is the 24th most populous state in the United States and has a diverse citizenry, including 64% Caucasian, 28% African-American, and 5% Hispanic residents (U.S. Census Bureau, 2012). Children and youth under the age of 18 make up 23.8% (1.98 million) of North Carolina’s children live in poverty (Annie E. Casey Foundation & O’Hare, 2013).

Equally unfortunate, a high percentage of children attending public schools in the Carolinas perform below state standards. For example, in South Carolina, the number of children who perform below state standards in reading (17% in 3rd grade; 32% in 8th) and math (30% in 3rd grade; 30% in 8th) is substantial, and in North Carolina, the situation is considerably worse, with below-standard scores in reading at 65% in...
Public Health Implementation Framework
Social Emotional and Behavioral Mental Health

- **We organize our resources**
  - Multi-Tier Mapping, Gap Analysis

- **So kids get help early**
  - Actions based on outcomes (data!), not procedures

- **We do stuff that’s likely to work**
  - Evidence-Based interventions

- **We provide supports to staff to do it right**
  - Fidelity: Benchmarks of Quality

- **And make sure they’re successful**
  - Coaching and Support
  - Progress monitoring and performance feedback
  - Problem-Solving process
  - Increasing levels of intensity
ADVANCING EDUCATION EFFECTIVENESS:
INTERCONNECTING SCHOOL MENTAL HEALTH AND SCHOOL-WIDE POSITIVE BEHAVIOR SUPPORT

EDITORS: SUSAN BARRETT, LUCILLE ERICK & MARK WEIST
ISF Volume 2: An Implementation Guide
(*currently available at www.midwestpbis.org)

• Chapter 1: Context and Structure for Volume
• Chapter 2: Defining ISF: Origins, Critical Features, and Key Messages
• Chapter 3: Exploration and Adoption
• Chapter 4: Installing ISF at the District and Community Level
• Chapter 5: Installing and Initial Implementation of ISF at the Building Level
• Chapter 6: Implementation, Sustainability and Recommendations to the Field
An Interconnected Systems Framework (ISF) Defined

- A **Structure** and **process** for education and mental health systems to interact in most effective and efficient way.

- guided by **key stakeholders** in education and mental health/community systems, youth/family

- who have the **authority** to reallocate resources, change role and function of staff, and change policy.
ISF Enhances MTSS Core Features

- **Effective teams** that include community mental health providers
- **Data-based** decision making that include school data beyond ODRs and community data
- Formal processes for the selection & implementation of **evidence-based practices** (EBP) across tiers with team decision making
- **Early access** through use of comprehensive screening, which includes internalizing and externalizing needs
- Rigorous **progress-monitoring** for both fidelity & effectiveness of all interventions regardless of who delivers
- Ongoing **coaching** at both the systems & practices level for both school and community employed professionals
Key Messages

1. Single System of Delivery

2. Access is NOT enough

3. Mental Health is for ALL

4. MTSS essential to install SMH
Our First RCT:

- 24 Participating Elementary Schools
  - Charleston County, SC (12)
  - Marion County, FL (12)
  - Prior to study all were implementing PBIS; none were implementing SMH
- Each school is randomized to one of three conditions
  - PBIS Only
  - PBIS + SMH (business as usual)
  - Interconnected Systems Framework (ISF)
- Intervention (ISF) in place for 2 academic years
- All students in the building are participants unless they opt of study
Study Aims

- Evaluate impact of all conditions on
  - School discipline rates, teacher and student perceptions of school climate and safety and reported behavioral functioning of students
  - Functioning of teams, and access to treatment, quality of intervention and cost-effectiveness relative to improving behavior and school safety

Data
- Universal Mental Health Screening
- ISF-Implementation Inventory

Systems
- Expanded Team Membership
- Integrated Systems

Practices
- Enhanced Intervention Array
- Expanded Service Provider List
Indications of Success in ISF Schools*

- Teams documented progress to monitoring intervention outcomes (behavior, attendance, emotional barometer)
- Teams used screening, progress monitoring, outcome, and implementation fidelity data for decision making
- Action Planning for continuous quality improvement using implementation fidelity data (ISF-Implementation Inventory)
- Improvement in PBIS fidelity
- Improvement in family engagement in some schools:
  - Team participation; matrices for home; family google folder of support resources
- Majority of schools achieved 80% implementation of ISF

*preliminary analysis
• The percentage of students reporting Abnormal levels of risk on the SDQ declined from pre-treatment to post-treatment for the ISF condition
• Other groups reported similar (PBIS) or slightly increasing (PBIS +SMH) percentages of cases with Abnormal risk post-treatment
• In middle school, all three treatment groups yielded similar percentages of students noting high risk
ISF Implementation Inventory

• To assist school and community partners in their installation and implementation of ISF

• To assess baseline and/or ongoing implementation progress of critical ISF features

• To inform action planning that advances and enhances ISF implementation

• To measure ISF implementation fidelity
<table>
<thead>
<tr>
<th>Tier 1</th>
<th>Tier 2</th>
<th>Tier 3</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>19 items</td>
<td>16 items</td>
<td>19 items</td>
<td></td>
</tr>
</tbody>
</table>

**Implementation of SWPBIS:** Are core features of SWPBIS implemented with fidelity?

**Teaming:** Do team members collaborate? Do team members include education and mental health system representatives, families, and students as indicated with active opportunities for participation and collaboration.

**Collaborative Planning and Training:** Do all team members have PD and training across systems and core features of ISF, as well as intervention practices as appropriate?

**Family and Youth Engagement:** Are students and families included in teaming, decision making, intervention selection and implementation, intervention monitoring, and system processes?

**Intervention Selection, Implementation and Progress:** Are evidence-based interventions selected based on need, implemented with fidelity, progress monitored, and concluded after attainment of positive outcomes?

**Data-Based Decision Making:** Are data representative of school, home and community behavior collected, analyzed and used for decision making, including outcome/impact, process, and fidelity data?
ISF-II, Version 2 Validation Study and Version 3 Release!

Version 2 Validation Study

- Internal consistency is strong
- Three-tiered model fits data
- Usability rated good-very good
- Suggested improvements included reducing wordiness and professional jargon

NOW!!

Version 3 Release

- [www.midwestpbis.org](http://www.midwestpbis.org)
- Contact Joni Splett ([splett@coe.ufl.edu](mailto:splett@coe.ufl.edu)) and Kelly Perales ([kelly.perales@midwestpbis.org](mailto:kelly.perales@midwestpbis.org))
Themes from Report Card

• Nearly all schools improved in each tier with each administration
• Many items were indicated as fully in place
• Several schools improved Tier 1 and some Tier 3 core features of ISF
• Family engagement consistently identified as needing improvement
Case Study

• One exemplar school has seen improvements in several areas since implementation of the ISF began
  • Standardized test scores
  • Attendance
  • Students falling in the normal range on EB measures
  • Parent Engagement
  • PBIS Fidelity
  • ISF Fidelity
Example Team Membership: (improvements shown over time)

- ISF Team
- Assistant Principal
- School Nurse
- General Educator
- Parent
- Parent
- Student
- Collaborating community mental health professional
- School Counselor
- Special Educator
- School Psychologist

School Counselor
Assistant Principal
School Nurse
General Educator
Parent
Parent
Student
Collaborating community mental health professional
Special Educator
School Psychologist
Functioning of Teams in ISF Schools*

Greater team participation by principals, school counselors, school psychologists, and school mental health clinicians

Greater commitment to team meetings
- 3.7 times more team meetings per quarter (with more productivity!);
- 25 minutes longer

More Tier 1 problem-solving discussions
- Using data to address issues discussed

*preliminary results
## Integration of Community Data

<table>
<thead>
<tr>
<th>General Agenda Topics</th>
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<tbody>
<tr>
<td>Team News</td>
<td>• Ms. Ray and Mr. Miller will be retiring at Winter Break</td>
</tr>
<tr>
<td>Data review</td>
<td>• Review any data presented by team members</td>
</tr>
<tr>
<td>Community data</td>
<td>• Data on DCF interactions presented by school counselor</td>
</tr>
<tr>
<td></td>
<td>• DCF interactions are up significantly (11 for the year as of</td>
</tr>
<tr>
<td></td>
<td>last month, 17 currently)</td>
</tr>
<tr>
<td>Housekeeping</td>
<td>• Teachers have requested more information about Zones of</td>
</tr>
<tr>
<td></td>
<td>Regulation so that they can support it in the classroom</td>
</tr>
<tr>
<td></td>
<td>• Hannah will provide that information through the Clinician’s</td>
</tr>
<tr>
<td></td>
<td>Corner</td>
</tr>
<tr>
<td></td>
<td>• Make sure we complete IRF for attendance CICO as well</td>
</tr>
<tr>
<td>Behavior intervention data</td>
<td>• Summary of intervention data presented by ISF coach;</td>
</tr>
<tr>
<td>review</td>
<td>discussion of variety of interventions, and student numbers</td>
</tr>
<tr>
<td>ISF Implementation</td>
<td>• ISF Implementation action planning conducted (see below)</td>
</tr>
<tr>
<td>Inventory Action Planning</td>
<td>• Overall, we have made continuous growth with our ISF</td>
</tr>
<tr>
<td></td>
<td>implementation inventory</td>
</tr>
<tr>
<td>Referrals for behavior</td>
<td>• No referrals presented at this time</td>
</tr>
<tr>
<td>intervention service</td>
<td></td>
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</tbody>
</table>
# Identifying Specific Action Steps by Data

<table>
<thead>
<tr>
<th>ISF Implementation Inventory Action Steps</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sustain</td>
</tr>
<tr>
<td>Tier 1</td>
</tr>
<tr>
<td>- 1.13 Universal mental health of social-emotional screening is conducted in the areas of both internalizing and externalizing concerns</td>
</tr>
<tr>
<td>- 1.16 Tier 1 conversation/team regularly monitors implementation fidelity of Tier 1 school-wide mental and behavioral health interventions according to the established protocol</td>
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</table>
Collaborative Planning and Training

• Department of Mental Health (DMH) provided mental health literacy training to all staff; participated in wellness fair and supported staff wellness; provided consultation to staff regarding concerns

• Education leaders provided training to DMH leaders and clinicians on PBIS/MTSS core features and interventions across tiers (i.e., CICO, etc.)

• Coaches from both systems worked in tandem
Improving Family Engagement and Participation

Sharing Information with families

• Directory in office w/ pics & services offered
• Google drive with tools for parents
• Attending PTA/PTO meeting
  — sharing continuum of services
  — student sharing (skits, testimonials, etc.)
Greater Parent Involvement

<table>
<thead>
<tr>
<th>Number of Parents Involved in the Parent Teacher Association</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Members</td>
</tr>
</tbody>
</table>

Parent Teacher Association Attendance

- 9/1/2017: 20
- 10/1/2017: 25
- 11/1/2017: 20
- 12/1/2017: 15
- 1/1/2018: 20
- 2/1/2018: 35
- 3/1/2018: 30
- 4/1/2018: 25
- 5/1/2018: 20
- 6/1/2018: 15
- 7/1/2018: 10
- 8/1/2018: 5
- 9/1/2018: 10
- 10/1/2018: 15
- 11/1/2018: 20
- 12/1/2018: 25
- 1/1/2019: 15
## MLES’s 3 Be’s!

**Family Matrix**

<table>
<thead>
<tr>
<th>Be Safe</th>
<th>Make sure MLES always has your current contact information.</th>
<th>Drive safely and politely in the parking lot, in carline, and on the surrounding streets.</th>
<th>Always sign in and out at the office when you come to school and make sure you wear your visitor’s pass.</th>
<th>Provide your child with the items necessary to stay clean and healthy.</th>
<th>Make sure your child has a safe way to get home from school and communicate any transportation changes to the office by 1:30. 843-762-2765</th>
<th>Monitor your child’s screen, TV, video game, and internet use. <a href="https://www.commonsensemedia.org">Commonsense Media</a> (Create Family Media Plan Here)</th>
<th>Take precautions to secure medication and weapons so that your child does not have access to these items.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Be Responsible</td>
<td>Take time to educate yourself, learn about and understand Montessori. (<a href="https://www.montessori.org">Montessori 101</a>)</td>
<td>Make sure your child is at school every day by 7:25 and picked up starting at 2:25.</td>
<td>Find your way to contribute to MLES to enrich your child’s experience: volunteer, donate, join PTO and attend school and PTO events.</td>
<td>Make sure that your child is well fed, well-rested (<a href="https://www.sleepfoundation.org">sleep chart here</a>) and ready to learn each day.</td>
<td>Read the <a href="https://www.mles.org">Parent Handbook</a> and CCSD’s Codes of Conduct: <a href="https://www.ccsd.k12.sc.us/aci/dept/psp/elementary">Elementary</a></td>
<td>Check your child’s folder and read all notes from school</td>
<td>Read your child’s report card and attend all parent/teacher conferences.</td>
</tr>
<tr>
<td>Be Respectful</td>
<td>Know and support the school-wide behavior expectations at MLES. (<a href="https://www.mles.org">MLES Student Matrix</a>)</td>
<td>Make an appointment to meet with your child’s teacher when you have questions, concerns, and for progress updates.</td>
<td>Remind your child about the value of their education and encourage your child to do their personal best in school.</td>
<td>Model kind words at home and encourage your child to use grace and courtesy.</td>
<td>Encourage your child to listen and follow directions.</td>
<td>Teach your child to resolve conflicts without using violence or putting others down.</td>
<td>Be proud and supportive of the efforts and initiatives at MLES and speak in a positive way about MLES.</td>
</tr>
</tbody>
</table>
Positive Office Referral

Burns Elementary
Positive Office Referral

Positive Behavior Displayed (Circle the one that most applies!)

- Being kind to another student
- Going out of the way to help someone else
- Doing extraordinary work
- Setting a POSITIVE example for others to follow

Sharing
Cleaning up VERY well
Being a GREAT role model for others

Location (Circle one)

- Classroom
- Playground
- Specials
- Hallway
- Cafeteria
- Media Center
- Bus
- Special Event/Assembly/Field Trip
- Other: ________________

Brief Description of Positive Behavior:


Phone call home by: ____________________________
Parent Workshops: Mindfulness and Yoga
Featuring Parent Involvement
Additional Thoughts

Traffic study- change the time

Changing from PTO to family academic nights... make it fun!
  • Halloween Literacy Night
  • Fall Festival Math Night
  • Multicultural Festival

Include door prizes, food, and feature student work as much as possible!
Intervention Selection, Implementation, and Progress
Check-In/Check Out (CI/CO)
In-On-Out Decision Rules

1) Identification for CI/CO (“In”):
   - Student identified in Elevated range for Externalizing Risk on screener
   - Student has 2 or more ODRs leading to suspension
   - Student has not responded to Tier 1 core curriculum or low-level supplemental supports

2) Progress-monitoring (“On”):
   - DPR data is collected daily & reviewed every other week. Data is collected and reviewed for 6-8 weeks, and monitored for trend.

3) Exiting/transitioning (“Out”):
   - Student received a total of 80% of DPR points average per day/week for 8 weeks and has had no new ODRs, suspensions, or time out of class due to behavior issues. Student may be faded to Tier 1 or “modified” CI/CO.
CI/CO Individual Student Progress Monitoring Data

Behavior Chart (Tier 2) - Caleb A
Points Goal: 25
What is MATCH-ADTC?

• Easy to use practice guides or step-by-step instructions for implementing the key elements of each module (treatment procedures)

• Flowcharts that coordinate treatment and guide selection of modules

• Paperback or online format
Social Emotional/Behavior Goals

1 Social Emotional/Behavior goal has been set for the areas of Self-regulation of anger/frustration, Tardiness/Truancy, Low motivation.

Goal 1) Desired Behavior/SSkill Tracking Chart - Target: 8
Baseline as of 10/27/2017: 2
Target to achieve before 6/1/2018: 8
Progress will be measured Every 2 week(s)
experiences emotional disregulation, which results in missing school per parent and student report.
Her attendance will increase from attending 2 out of 10 school days to 8 out of 10 school days per two week period.

Goal 1) Desired Behavior/SSkill Tracking Chart - Target: 8

Status: Met
Youth Self-Report

How Are You Feeling Today?
Circle Where You are on the Feelings Thermometer

Name:____________________
Date:____________________

Terrible--- Using negative language, Hurt by friends, Not being Kind
  ● How can I fix this? Say something nice to yourself or someone else

Not Okay-- Upset, Not being nice to friends
  ● How can I fix this?_________________________________________

Okay-- Feeling stuck but I'm trying to be kind to my friends
  ● What can I do to make it better?______________________________

Good-- Working well with friends and being kind
  ● I made this happen today by ________________________________

Great-- Calm & Happy, said something nice to my friends today!!!
  ● I was kind to myself and I was a great friend!
Using Data for Decision Making: Improved System Fidelity and Student Outcomes

School-Wide PBIS (SWPBIS) Tiered Fidelity Inventory
8/22/2016 - 10/15/2018

<table>
<thead>
<tr>
<th>Date Completed</th>
<th>Tier I</th>
<th>Tier II</th>
<th>Tier III</th>
</tr>
</thead>
<tbody>
<tr>
<td>8/22/2016</td>
<td>60%</td>
<td>50%</td>
<td>68%</td>
</tr>
<tr>
<td>5/1/2017</td>
<td>57%</td>
<td>45%</td>
<td>65%</td>
</tr>
<tr>
<td>5/7/2018</td>
<td>90%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>10/15/2018</td>
<td>97%</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

ISF Implementation Inventory Results
Improved Math and Reading Proficiency on Standardized Tests

MAP Math Proficiency - Median Percentile Rank

MAP Reading Proficiency - Median Percentile Rank
## Fewer Unexcused Tardies and Absences

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>Unexcused Tardies</strong></td>
<td>60%</td>
<td>64%</td>
<td>61%</td>
<td>49%</td>
<td>20%</td>
</tr>
<tr>
<td><strong>More Than One Unexcused Tardies</strong></td>
<td>43%</td>
<td>48%</td>
<td>40%</td>
<td>33%</td>
<td>13%</td>
</tr>
<tr>
<td><strong>Unexcused Absence</strong></td>
<td>88%</td>
<td>87%</td>
<td>89%</td>
<td>86%</td>
<td>35%</td>
</tr>
<tr>
<td><strong>More Than One Unexcused Absence</strong></td>
<td>75%</td>
<td>73%</td>
<td>71%</td>
<td>70%</td>
<td>29%</td>
</tr>
</tbody>
</table>
More Students Within the Normal Range on Emotional/Behavioral Screeners

<table>
<thead>
<tr>
<th>Year</th>
<th>Normal Risk</th>
<th>Elevated Risk</th>
<th>Extreme Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall 2016</td>
<td>74%</td>
<td>17%</td>
<td>9%</td>
</tr>
<tr>
<td>Spring 2018</td>
<td>72%</td>
<td>13%</td>
<td>15%</td>
</tr>
<tr>
<td>Fall 2017</td>
<td>73%</td>
<td>19%</td>
<td>9%</td>
</tr>
<tr>
<td>Spring 2018</td>
<td>76%</td>
<td>14%</td>
<td>10%</td>
</tr>
<tr>
<td>Fall 2018</td>
<td>77%</td>
<td>16%</td>
<td>7%</td>
</tr>
</tbody>
</table>

BESS Universal Screener
Improved research outcomes:

Strengths & Difficulties Questionnaire – Student Rating

- 2015-2016:
  - Normal: 63%
  - Borderline: 19%
  - Abnormal: 13%

- 2016-2017:
  - Normal: 73%
  - Borderline: 14%
  - Abnormal: 13%

Strengths & Difficulties Questionnaire – Teacher Rating

- 2015-2016:
  - Normal: 67%
  - Borderline: 13%
  - Abnormal: 21%

- 2016-2017:
  - Normal: 77%
  - Borderline: 9%
  - Abnormal: 15%
Resources are available at:

www.pbis.org
Under topics:

Mental Health/Social-Emotional Well-Being
TA Briefs, Recorded Webinars, Presentations

Examples
Check out these samples, case studies and lesson plans and use them as a springboard to improve your own implementation.

Materials
Resources in this section include journal articles, templates, practice descriptions, fact sheets, and much more.

Presentations
Presentations about their experiences, published research, and best practices from recent sessions, webinars, and trainings.

Publications
Publications listed below include every eBook, monograph, brief, and guide written by the PBIS Technical Assistance Center.

Video
Recordings here include keynotes and presentations about PBIS concepts as well tips for implementation.
Check Out the Fact Sheets:

www.pbis.org
www.midwestpbis.org
Questions/Discussion