

# A CROSS-SITE PARTNERSHIP TO EXAMINE IMPLEMENTATION AND SUSTAINABILITY OF A SCHOOL-BASED TRAUMA PROGRAM

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**Objectives:** Schools have been identified as an ideal setting for increasing access to mental health services particularly for underserved minority youth. The emerging field of implementation science has begun to systematically investigate strategies for more efficiently integrating evidence-based practices into community settings. Significantly less translational research has focused specifically on the school setting. To address this need, we examined the implementation of a school-based trauma intervention across three distinct regions.

**Design:** We conducted key informant interviews guided by Mendel's Framework of Dissemination in Health Services Intervention Research with multiple school stakeholders to examine what school organizational characteristics influence the adoption and implementation process and sustainability of Cognitive Behavioral Intervention for Trauma in Schools (CBITS). Participants were selected from schools in three geographic regions in the United States: Western, Midwestern, and Southern.

**Results:** Our findings reveal that while sites had some common organizational factors that appeared to facilitate implementation, regions differed in how they compensated for less robust implementation domains. Across all regions, school stakeholders recognized the need for services to support students impacted by trauma. In the Western region, there was no centralized district policy for implementation; therefore, implementation was facilitated by school-level change agents and supervision support from the district mental health unit. In the Midwestern region, centralized district policies drove implementation. In both the Midwestern and Southern regions, implementation was facilitated by collaboration with a local mental health agency.

## INTRODUCTION

Numerous studies have documented the deleterious impact of exposure to violence and other traumatic events on the social, emotional, and academic functioning of children and adolescents.<sup>1,2</sup> While low-income minority youth are more likely to be exposed to traumatic events, they are less likely to receive care.<sup>3,4</sup> Schools have been identified as an ideal setting for increasing access to mental health services particularly for underserved minority youth.<sup>5</sup> While delivering services in community settings (ie, schools) has the potential to increase access to care for youth who have mental health needs, broad

dissemination of evidence-based practices in such settings remains limited.<sup>6</sup> Research suggests that evidence-based interventions can "languish" for 15-20 years before being implemented as standard practice in community settings.<sup>7</sup>

The emerging field of implementation science has begun to systematically investigate strategies for more efficiently integrating evidence-based practices into community settings.<sup>8</sup> Findings from this growing body of research have led to the identification of key organizational factors that influence the implementation and sustainability of evidence-based practices in community settings.<sup>9-13</sup> Unfortunately, significantly less translational research

**Conclusions:** This study contributes to the paucity of empirical information on the organizational factors that influence the implementation of evidence-based mental health interventions in schools. Our findings reveal that different implementation strategies across policies, structures, and resources can result in implementation of a school-based intervention. Frameworks such as Mendel's can be helpful in identifying areas of strength and improvement of implementation within a school organization. *Ethn Dis.* 2018; 28(Suppl 2): 427-436; doi:10.18865/ed.28.S2.427

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has focused specifically on the school setting.<sup>14</sup> Given the unique aspects of the education system, including competing aims, limited space, and fixed resources that may further complicate the implementation of mental health practices in the educational setting, there have been calls for school-focused implementation research.<sup>8,15</sup>

In recent years, several comprehensive frameworks for implementing innovations in health care settings have

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emerged.<sup>8,9,11,13,16</sup> While these frameworks share common elements, some place particular emphasis on specific variables believed to be particularly critical to the implementation process.<sup>9,13</sup> Building on social cognitive and learning theories at the individual level,<sup>17</sup> the examination of diffusion of innovations,<sup>18</sup> and implementation-dissemination science,<sup>16</sup> Mendel's Framework of Dissemination in Health Services Intervention Research<sup>12</sup> includes many of

the core constructs found across these theoretical frameworks, but is unique in that it emphasizes the role of community partnered participatory research (CPPR) throughout the implementation and dissemination processes.<sup>19</sup>

According to this framework, specific individual- and organizational-level factors are thought to impact effective implementation and sustainability. Federal-, state- and local-level policies and incentives have significant capacity to drive or impede the implementation of new interventions in community settings.<sup>20,21</sup> These factors may be particularly relevant to school-based implementation, as schools are unlikely to change without external influence.<sup>15</sup> Without widespread belief (norms and attitudes) that a particular mental health condition warrants attention and that an identified intervention can successfully improve the condition, uptake is unlikely.<sup>16,22</sup> Resources including dedicated staff time and access to ongoing consultation and/or coaching are critical to implementation and sustainment of evidence-based practices<sup>20,23,24</sup> and persuasive change agents have been shown to be central to the adoption of new innovations in community-settings.<sup>23,25</sup> Finally, an organization's structure and processes can significantly influence implementation in community mental health settings.<sup>21</sup>

To address the need for school-focused implementation research and further our understanding of the factors that drive and impede the use of evidence-based practices in school-settings, this study expands the use of Mendel's model to examine the implementation of a group-based trauma intervention, the Cognitive Behavioral Intervention for Trauma

in Schools (CBITS) in the unique service setting of schools. While prior studies of CBITS implementation have focused on specific implementation factors such as buy-in from important stakeholders (ie, teachers, clinicians, and leadership),<sup>26-28</sup> to our knowledge, this is the first study to apply a comprehensive framework with a community partnered approach to the implementation of CBITS.

## METHODS

### The Cognitive Behavioral Intervention for Trauma in Schools (CBITS)

In this study, we examined the implementation of an evidence-based school program, the Cognitive Behavioral Intervention for Trauma in Schools (CBITS), a group-based intervention designed to support students who have symptoms of posttraumatic stress disorder (PTSD).<sup>29</sup> CBITS was created in partnership with school staff and administrators and was specifically designed for school-based delivery.<sup>30</sup> The intervention has been shown to ameliorate symptoms of PTSD and depression among pre-adolescent and early-adolescent students exposed to violence<sup>29</sup> and has also been associated with improved school performance.<sup>31</sup>

### Study Participants

We conducted key informant interviews with multiple school stakeholders to examine the organizational characteristics that influence the adoption and implementation processes and sustainability of CBITS in schools across three geographic regions: Western, Midwestern, and Southern re-

**Table 1. Implementation factors by region**

	<b>Western Region</b>	<b>Midwestern Region</b>	<b>Southern Region</b>
Norms and Attitudes	Staff aware of the impact of trauma on student functioning	Staff aware of the impact of trauma on student functioning	Staff aware of the impact of trauma on student functioning
Policy and Incentives			
Funding	Federal grant dollars, district funds, Medicaid billing	Federal grant dollars, private charity	Federal grant dollars
Training	Centralized: initiative led by the district Mental Health Unit.	Centralized policies: at the community-agency level	Centralized: provided by local community mental health agency.
Implementation	No centralized district level-policy for CBITS implementation.	Implementation policies centralized at the district level.	Decentralized decision to implement CBITS made at the individual school level.
Organizational Structure	Individual district clinician	Co-location: Community mental health agency clinician partner with onsite school clinician	Co-location: Community mental health agency clinician partner with onsite school clinician
Organizational Processes	In-services and screening conducted at the school level. Limited communication between teachers and clinicians.	Centralized screening and in-service effort. Effective communication between teachers and clinicians.	In-services and screening conducted at the school level (not routinely conducted). Limited communication.
Resources	Varied support for clinical staff time by school. Space varied by school. Supervision available by the Mental Health Unit.	Uniform support for clinician time. Space uniformly available. Limited supervision.	Agency supported clinical staff time. School staff support varied. Space varied by school. Supervision varied.
Change Agent	Clinician and principal	Clinicians, district and school leaders	School-based and agency clinicians

gions of the United States. Each region had received federal funding from the Substance Abuse and Mental Health Services Administration (SAMHSA) through the National Traumatic Stress Network (NCTSN) to initiate their adoption of CBITS. Regions were included in the study because they were known to have implemented the intervention for a minimum of three years prior to this study being conducted. Utilizing a community partnered research approach, the research team collaborated with regional CBITS community partners who identified specific schools for the study. Partners selected schools where at least one CBITS group had been implemented. The final sample included a total of 11 schools: 4 schools in the Western region, 4 schools in the Midwestern region, and 3 schools in the Southern region.

From these schools, community partners identified a convenience sam-

ple of key informants, selected based on their familiarity with CBITS implementation in their school. Participants within each school included at least one teacher and or administrator, one clinician, and one parent. In addition, we included five regional representatives (two district administrators, two community agency administrators, and one administrator from a non-profit charitable organization) who had helped lead the implementation effort in that region. Interviews were conducted with 51 participants: 15 clinicians, 9 principals, 11 teachers, 11 parents and 5 regional representatives.

The Western Region includes four public schools, serving a student population of more than 90% Latino students, living in poverty, as defined by qualifying for the subsidized lunch program, within one large urban district. In the Midwestern Region, the four public schools (three from district

1 and one from district 2) had student populations that were 40%-80% Caucasian, 30% Latino, and 10%-30% African Americans, with 30%-60% of students qualifying for subsidized lunch. The Southern Region included two charter schools and one private school. At the two charter schools, the student population was more than 90% African American, with 80% qualifying for free or reduced lunch, and at the private parochial school, the student population was 90% Caucasian (poverty indicator was not available).

## Procedure

Participants verbally consented to be interviewed by telephone, with interviews lasting approximately 45 minutes. Semi-structured interview questions were guided by the aforementioned model by Mendel and colleagues.<sup>12</sup> Questions were designed to obtain feedback about the individual

and contextual factors thought to impact adoption, implementation, and sustainability of interventions in community settings. Questions assessed participants' beliefs and attitudes regarding school-based mental health services, how the organizational structure and process affected implementation strategies, and how the availability of resources, policies and funding aided implementation of CBITS. The study was conducted in compliance with the university IRB. Complete interview guides are available upon request.

### Analysis

Interviews were audio-recorded and transcribed by members of the research team. ATLAS.ti 6.2 was used for qualitative analysis of major themes across interviews. Using grounded theory techniques,<sup>32</sup> transcripts were reviewed by the research team to establish initial codes and inter-rater reliability. Through consensus building, larger themes then further distilled to represent emergent themes across stakeholders.

## RESULTS

Implementation factors discussed below are summarized in Table 1.

### NORMS AND ATTITUDES: ACROSS THE THREE REGIONS

Across the three regions, the majority of the teachers and administrators recognized that violence and trauma affected both students' ability to learn and their social, emotional, and behavioral functioning. One clinician explained, "I think it affects their ability

*to attend school, to participate in education [and] it affects their ability to follow rules and maintain good social-emotional relationships with other students and staff."* Similarly, a teacher noted the impact of trauma on classroom behavior stating, "We have kids who just put their heads down, and it's very difficult to get them involved in anything. I don't know specifically what's going on to have them react that way, but I'm pretty sure it's...stressful and traumatic events that they're experiencing at home." Additionally, staff members across sites reported that CBITS was a supported and needed service at their school.

### Policies

The decision-making, rules, and financing of CBITS training and implementation at the various organizational levels (school, agency, district) varied across regions. (Figure 1) The Western region's school district has a School Mental Health (SMH) unit that oversees and coordinates a continuum of programs and services that address barriers to learning and enhance healthy development. SMH can bill Medicaid for CBITS participants who are Medicaid eligible and meet medical necessity. The director of SMH has prioritized CBITS, strongly encouraging that all clinicians be trained to implement CBITS. Respondents from each of the four schools in this region commented that SMH's policy has been vital to the successful implementation at their schools. An administrator from school D stated, "Well I think that especially in the last two years that School Mental Health as a unit has [supported the delivery of CBITS]. The administration has really focused on getting everybody

*trained and implementing CBITS".* Additionally, each Western region school in this study had access to discretionary funds with a multi-stakeholder council composed of staff, teachers, parents, and students, who vote on how to specifically spend these funds. Three of the four schools (A, B, C) in this region opted to use these discretionary funds for an onsite clinician whose role included the implementation of CBITS. The administrator from school C commented on the decision of the school council to fund a clinician, "The school council agreed that ... one of our priorities is to have a full-time [clinician]. And there are not too many schools that have a full-time [clinician] at the elementary level, I assure you. It should be mandatory for every school in this area."

When the initial federal funding ended in the Midwestern region, a private organization began financing the implementation of CBITS. A representative from this organization described this transition saying, "In agreement that we were all working toward common goals, CBITS became...a core piece in what [our organization is] doing in schools...to address some of the behavioral health issues." As a result, implementation became centralized from the county mental health center and expanded to all districts within the county. In District 1 (the district that received the prior SAMHSA grant), district administrators had prioritized CBITS implementation. One administrator from District 1 explained, "Our district has established a focus on trauma as a priority." This second wave of private funding extended to District 2 (not previously federally funded) to support trauma screening and CBITS implementation. District 2 did not man-



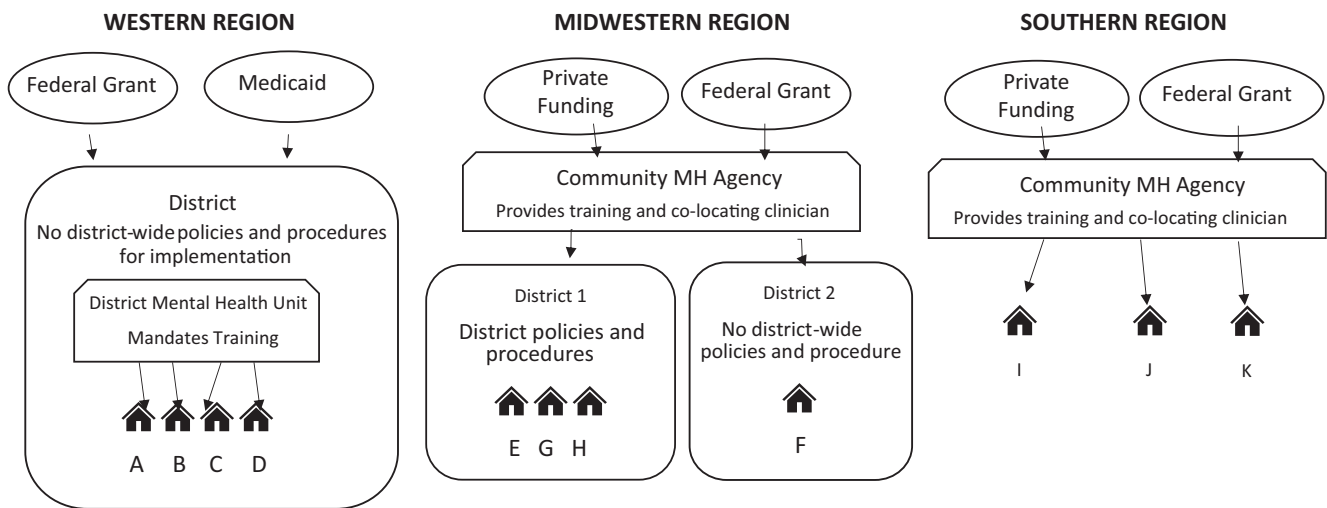


Figure 1. Regional policies and organization structure.

date screening and implementation.

In the Southern region, a local community mental health agency obtained an additional wave of federal funds to support the implementation of CBITS across multiple school systems in the area, in both public and private parochial schools following a hurricane. With this funding, agency clinicians co-locate to local school campuses and provide the initial training, supervision, and co-leading of CBITS groups with the schools' counselors. Medicaid had not been an option to support CBITS groups in the schools. There was no overarching district policies or support for CBITS implementation. CBITS implementation instead occurred at the school level. "Our school system is very interesting in the way that it's set up, and so [we] had a lot of barriers navigating the Catholic school network and ... whether or not they were going to be willing to allow mental health in the schools and dealing with new and upcoming charter schools and public schools." The respondents

did not identify any state funding to support CBITS implementation.

### Organizational Structure

The Midwestern and Southern regions were characterized by a strong partnership with an outside community mental health agency. In the Western region, centralized training and supervision came from the district's Mental Health Unit. Each school could then decide to implement CBITS with a school clinician funded by discretionary school dollars, who was responsible for providing general counseling, crisis intervention, and CBITS (Schools A, B, C) or with a provider from the School Mental Health Unit who would co-locate onto the campus exclusively to deliver CBITS (School D).

### Organizational Processes

Key components of the organizational process of CBITS implementation, including teacher and staff in-services, the screening process, and the flow of information about CBITS between

clinicians and school staff, remained unique across the three sites. The process of delivering the CBITS groups to students was fairly uniform across sites.

### Western Region

Schools independently dictated the process of implementation.

#### SCHOOL STAFF IN-SERVICES

In the Western region, each of the schools had delivered a CBITS teacher educational session within the past two years. Clinicians and school staff in this region commented that the teacher educational session was a useful component of enhancing support for CBITS on campus as it showed them the impact of trauma on learning. The teacher from School B commented, "I think without the introduction, it would have been really bad because you know, taking students out of the classroom in the middle of instruction is never welcome by teachers. It causes disruption. But with the introduction, of course, we

*understood the purpose of it [CBITS], and is it was a lot more amicable.”*

#### SCREENING

As with the teacher educational sessions, the screening process was conducted independently at each school. The clinician from school D remarked that the screening results served to enhance communication about CBITS implementation saying, *“I think that doing the screening and doing the CBITS groups has heightened their [teachers] awareness.”*

#### CLINICIAN/TEACHER COMMUNICATION

Three of the four Western schools (A, B, C) reported limited communication between clinicians and teachers about the CBITS intervention. While more communication about CBITS occurred at school D, it was done in an informal manner. The clinician from school D commented, *“So I just try to figure out what’s [each teacher’s] preferred method of communication, and then I try to communicate regularly, whether it’s weekly or as regularly as possible because I do notice that they love being in the loop.”*

#### Midwestern Region

All three schools in District 1 described the benefit of having centralized organizational processes supporting CBITS implementation.

#### SCHOOL STAFF IN-SERVICES

Teacher in-services were mandated by District 1. The administrator for School G noted: *“There are a number of district-wide staff who conduct in-school trainings and district wide trainings and that has made a big difference in staff awareness, understand-*

*ing, acceptance, and the willingness to go the proverbial extra distance.”*

#### SCREENING

Similarly, the screening process is formalized by District 1. The administrator from School H commented: *“The teachers ... really welcome the social worker and the psychologist into their classroom to give the presentation to the whole group and do the .. survey.... They have them come into the room, and they help facilitate the filling out of the forms. They are open to having the kids leave to go do that [CBITS screener].”* School F from District 2 did not report having a formalized screening process.

#### CLINICIAN/TEACHER COMMUNICATION

The three schools from District 1 reported high levels of communication between clinicians and school staff about students’ mental health. Of these, two schools (E, H) had formalized methods of communication. The administrator and clinician from School E described bi-weekly “kid-talk meetings” during which clinicians and staff members discuss students with behavioral or emotional concerns, including those enrolled in CBITS. *“It allowed us to be more proactive and the staff could bring up their concerns and what things were done already. We discussed students in CBITS groups, and teachers could become more aware of how to talk to the students.”* School F (District 2) did not have any consistent method of communication between staff and clinicians either formal or informal. A clinician at school F stated, *“I think we need to improve our communication with staff.”*

#### Southern Region

Schools independently dictated the process of implementation.

#### SCHOOL STAFF IN-SERVICE

Teacher educational sessions were left to the individual schools and were either not done consistently or mentioned as part of a larger meeting (I, K)

For example, the teacher at school I explained, *“I mean we haven’t had any meetings really about CBITS, maybe like in a professional development it was mentioned with a whole bunch of other programs or issues but nothing that has stuck out in my head...”*. Similarly, at school K information was provided about CBITS during a group meeting; however, it was not a formal teacher in-service but rather was given at the end of a parent-teacher night. Only school J received an in-service specific to trauma and CBITS. The clinician reported, *[the community mental health agency] came and did some teacher awareness as a professional development before school started for all of the teachers ...”*

#### SCREENING

The screening process occurred independently at each school as well. At school I, the school social worker selected students to be screened. The clinician explained, *“The school social worker, she knows all the students very, very well ...and she picked the ones she wanted to get screened.”* At school J, the co-locating clinician from the agency conducted the screening process.

#### CLINICIAN/TEACHER COMMUNICATION

Clinicians and school staff described the need for improved communication in this region. When asked what would

make it easier to deliver CBITS on campus, the clinician from school I explained, "I think to have more discussions around what it is that I'm doing, that the kids aren't just coming into this black hole, and being spit out on the other end." The teacher from school I expressed a similar sentiment saying, "I think that maybe if [the clinician] maybe met with the teachers occasionally like did check-ins to kind of let teachers know what was going on and like how different students were progressing..." The teachers from school K and J echoed this desire for enhanced communication with teachers. When asked what would help to support CBITS, the teacher from school J responded, "more communication and including teachers...helping us track the progress."

## Resources

### Western Region

#### STAFF

Across the four schools in the Western region, clinicians ranged from being part-time, full-time or co-locating. Support from additional support staff whether it be a co-locating clinician, interns, or onsite counselors was described as vital to successful implementation. The part-time clinician from school B believed that additional staff support from the onsite school counselor was indispensable to their success in implementing the groups on campus. She explained, "CBITS is just one thing that I do, and I did it this time around because I had another set of eyes, and hands, and brain to work with, to be able to manage it." Similarly, the co-locating clinician at School D believed that the work of the full-time onsite counselor was essential for CBITS groups to run. "...I was not at school full-

time...I really relied on the college counselor and so I allied with her to run the groups." The counselor from school D commented, "I had to get the room, the time, the schedule of the teachers. I handled all of that. So when they came in, it was more of a let's get started with the group."

#### SPACE

Three of the four clinicians (A, C, D) mentioned that identifying space to conduct both the CBITS group and the individual sessions could be problematic and described this as a barrier to implementation. The clinician from school A explained, "Space is a really big issue because we're always kind of scrambling to find where space is available. That is one of the barriers that we have to overcome."

#### SUPERVISION

Clinical supervision was centrally provided by the district school mental health unit for all clinicians. The Reflective Learning Group (RLG) model, a weekly group supervision developed in this district to provide CBITS supervision and to allow for clinicians to process their experiences working with traumatized youth, was thought to be a key factor to successful implementation by the majority of clinicians (A, C, D). The clinician from School D explained, "you problem solve, strategize, talk about lessons from week to week and the experiences we're all having with the different lessons so we have that form of group support."

### Midwestern Region

#### STAFF

CBITS was implemented using a co-locating model that consisted

of a school counselor co-facilitating groups with a co-locating therapist from a community-based agency. The staffing provided by this model was thought to significantly support implementation. The onsite clinician from school F explained, "It's a great group, and I feel like the support that we get are getting from [agency] is the main thing making it so. I don't think that it would be as good or as easy as it was because they're helping so much."

#### SPACE

When asked if there was consistent space to implement CBITS all respondents in the Midwestern region responded in the affirmative.

#### SUPERVISION

There was not a formal process of regularly scheduled supervision within or across the Midwestern schools. However, most clinicians did not find this to be problematic, as they reported that there was always sufficient support available through more informal channels. One clinician stated: "We had phone numbers and email addresses of people that we could consult with and we talked with one another of those that were doing CBITS throughout the process about how to improve things or if we had a question". Another clinician described the clinical support by saying, "We're a pretty small agency so ... we just talk about our groups that we do, and ... I would just seek out from the clinical manager at times, if he had any ideas on how to facilitate some of the things."

### Southern Region

#### STAFF

Most schools used a co-locating model with a clinician from a desig-

nated community-based agency going to the school to implement CBITS. However, the amount of support allocated or available from on-site school staff differed between schools. At one of the schools, the school-based counselor helped co-facilitate CBITS, whereas at the other schools the school-based clinician was spread across four schools and could only provide logistical support to the co-locating clinician. The clinician from school J, recognized the value of the support from the co-locating clinician, *"The co-facilitators coming in with all this stuff like I had to do very little prep work for it because they came in and they brought all the copies and they brought food...All I had to do was get the students in a room and do the group so it was really helpful."* The administrator from school K also cited the co-locating clinician from the agency as a key factor that promoted successful implementation on campus, *"[They] made it so easy. So that it was just a matter of our will to have [them] and someone who could coordinate that like our counselor. [They] took care of the rest."*

#### SPACE

Schools in the Southern region varied in their infrastructure to support CBITS implementation. Clinicians at two of the schools I and K felt that they had consistent room and resources to support CBITS, *"They're really great about providing, we have a good space, compared to my colleagues. I at least have a room that's consistent each week."* Consistent room was not available at school J, *"...we didn't have a designated space because the social worker's office was a closet, and it wasn't anywhere near the size that a group could be run in so that was always a problem."*

#### SUPERVISION

Supervision support varied across the school sites, as well. Counselors from two of the school sites felt that there was significant support available to them in terms of supervision (I, J). At school I, the clinician described her experience receiving supervision through the partnering community agency. *"There's a lot of support... I did participate in those groups last year and they were very helpful... it was good to have other people talk about their experiences or like modifications that they made or to get input."* Clinicians from the third school site (K) indicated that they were not part of ongoing supervision but could reach out to supervisors if they needed support.

#### Change Agent

In the Western region, clinicians (B, C, D) consistently considered themselves to be the strongest advocate (4 of 5) for CBITS. However, 4 of 5 clinicians also reported that their school principal was a strong advocate for CBITS as well. One clinician stated, *"The principal. She's amazing. I don't think that I could go to another school site and get the level of support and reception...and buy-in that she has."* Another clinician stated, *"...I would say that support from the principal really helped me because that allowed me to just go for it."*

In the Midwestern region three of the six clinicians (E, F, H) considered other clinicians to be the strongest advocate. The clinician from school E noted, *"I would say [name of social worker] has gone out of her way in a way that I haven't really seen..."*. In addition, three clinicians reported that administrators at the school, district leaders, and agency staff were the strongest advocates.

In the Southern schools, the change agents were the school-based clinicians and co-locating agency clinicians. One co-locating clinician described the school clinician saying, *"She's known as someone who really takes charge and advocates for students...So basically the way CBITS came into the school is she contacted [the community agency]... so they're the ones who brought CBITS in but she's the one who called them for help."* School-based clinicians viewed the outside mental health clinicians as agents of change. One clinician explained, *"It was really just the outside agency and myself...we targeted the grade, and I went directly to the teachers and of course, through the principal and the principal worked with her."*

#### DISCUSSION

To our knowledge, this study is the first to apply Mendel's framework to illustrate how key organizational factors can facilitate implementation of an evidence-based practice in schools across three distinctly different school systems. In all three regions, federal funds facilitated the initial training in and implementation of CBITS. The impact of this initial funding is unsurprising as targeted funds have been shown to be essential to adoption and implementation.<sup>9,33</sup> Additionally, awareness of the negative impact of trauma on students' academic and socio-emotional functioning was pervasive across a majority of staff in each region. Domitrovich and colleagues (2008) assert that "mission-policy alignment" is a critical aspect of implementation.<sup>14</sup> For schools, this alignment includes linking students' mental health to classroom be-



havior and academic achievement. In-services and other opportunities for clinicians to communicate with teachers and staff about the academic consequences of trauma not only serves to align CBITS implementation with the overall school mission, but also can provide critical justification for temporarily intervening during class time to reach a student in need of services.

Several additional factors appear to support CBITS implementation across sites. Onsite leadership from either the clinician and/or school administrator can strongly influence the use of CBITS on campus. Active onsite leadership has been critical to the implementation of evidence-based practices (EBPs) in other child-service settings<sup>23,25</sup> Additionally, the Reflective Learning Group supervision approach provided by the centralized mental health unit in the Western region was a significant source of support for clinicians. This mirrors earlier studies demonstrating that ongoing implementation support and consultation are crucial to establishing new EBPs within community settings.<sup>16,34,35</sup>

In both the Midwestern and Southern regions, the organizational structure that included a local community agency co-locating clinicians on the school campus to co-lead groups appeared to facilitate CBITS implementation at each site. This echoes a prior study of CBITS implementation which found that sites where a school-community agency partnership existed had more implementation success following training than those with only a school-employed clinician.<sup>28</sup> District-level policies establishing standardized trauma screening and in-services at each school within Dis-

trict 1 in the Midwestern region were also crucial to the success of CBITS.

Our findings also support the assertion by Fixen and colleagues that core implementation components can “compensate” for one another.<sup>16</sup> For example, the lack of district-level policy mandating CBITS implementation and centralized organizational processes for screening and in-services in the Western Region, may be compensated for by strong school-level change agents and a robust centralized supervision and training approach. However, in the Midwestern region, lack of ongoing supervision did not appear to impede implementation. This weakness may have been compensated for by the district-level mandate to screen for traumatic stress and implement CBITS with centralized support for a standardized approach to screening and in-services provided by the county mental health agency. Finally, a strong co-locating agency with a school-level clinician acting as an advocate may have compensated for the lack of administrator buy-in or centralized policy for implementation seen in the Southern Region. Further investigation into the relationships between these factors and under what conditions they may compensate for one another is an important next step.

### Study Limitations

Our findings must be considered within the context of the study limitations. Each region included in this study initiated CBITS implementation with the support of federal grant dollars. It is unclear how these results may generalize to regions without this type of financial support to initiate adoption. This was a pilot study, which

sought to begin to examine through qualitative analyses the relationship between key organizational factors and the implementation of the CBITS intervention. This study did not use quantitative approaches to measure implementation; future mixed methods research is needed to assess how implementation factors impact the quality and fidelity of implementation and subsequent student outcomes.

## CONCLUSIONS

Our study is an important next step in our understanding of the organizational factors that influence the implementation of evidence-based mental health interventions in schools. Our findings reveal that implementation is possible in diverse regions with varying organizational policies, structures, and resources. These findings are particularly relevant at a time when there are greater incentives to disseminate evidence-based practices in schools nationwide.

### CONFLICT OF INTEREST

No conflicts of interest to report.

### AUTHOR CONTRIBUTIONS

Research concept and design: Baweja, Langley, Kataoka; Acquisition of data: Vona, Pears, Langley; Data analysis and interpretation: Vona, Baweja, Santiago, Kataoka; Manuscript draft: Vona, Baweja, Santiago, Pears, Langley, Kataoka; Administrative: Vona, Baweja, Santiago, Pears, Langley, Kataoka; Supervision: Langley, Kataoka

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