Implementation
Determinants and
Strategies to Promote
Uptake and Sustained
Implementation of
Comprehensive School
Mental Health and
Trauma-Sensitive
Practices

Originally prepared for the Wisconsin Department of Public Instruction (DPI)

Authors: Maddie Aiello-Kimberlain, Tory Ash, Gina Bednarek, Cassidy Gerothanas, Eden Lochner, and Andy Garbacz





REGION 10 CCNETWORK WISCONSIN MINNESOTA

With deep roots in the region, R10CC is made up of three organizations: the University of Wisconsin–Madison's Wisconsin Evaluation Collaborative (WEC), the University of Minnesota's Center for Applied Research and Educational Improvement (CAREI), and Education Analytics (EA). Our team has extensive experience working with the Wisconsin Department of Instruction (DPI), Minnesota Department of Education (MDE), regional education support organizations, professional associations, and school districts to translate research into practical applications.

THE COMPREHENSIVE NETWORK

The U.S. Department of Education's Comprehensive Centers Program is designed to provide high quality and intensive capacity-building services to help state education agencies and their clients identify, implement and sustain evidence-based practices to support education outcomes pursuant to the Elementary and Secondary Education Act of 1965, as amended by the Every Student Succeeds Act of 2015.

CONTENTS

References

Introduction to Comprehensive School Mental Health and Trauma-Sensitive Practices
 Implementation Determinants to Uptake and Sustained Implementation
 Using Implementation Science to Identify Strategies for Uptake and Implementation
 Synthesizing Implementation Determinants to Identify Implementation Strategies



INTRODUCTION TO COMPREHENSIVE SCHOOL MENTAL HEALTH AND TRAUMA-SENSITIVE PRACTICES

Comprehensive School Mental Health (CSMH) systems refer to a continuum of supports and interventions designed to prevent, identify, and treat student mental health challenges and to promote student wellbeing and success (Zabek et al., 2022). CSMH systems coordinate services between school psychologists, school counselors, school social workers, and school nurses to promote the social and emotional development of students, which can have a positive and lasting impact on student achievement, behavior, and well-being. Hoover and colleagues (2019) delineated eight core features of CSMH systems, which are similar to features outlined by The National Center for School Mental Health (NCSMH) and advanced by regional mental health agencies. The eight features (excluding funding) are: (a) well-trained specialized support personnel, (b) family-school-community collaboration, (c) needs assessment and resource mapping, (d) multitiered systems of support (MTSS), (e) mental health screening, (f) evidence-based practice, (g) effective use of data, and (h) culturally responsive and equitable mental health practices. With the implementation of these eight features and consideration of clinical competencies, time, and resources, opportunities exist for schools to increase access to CSMH services and effectively meet the rising mental health needs of students (Zabek et al., 2022).

CSMH provides a process and orientation toward integration of mental health supports in a school. One aspect of necessary mental health supports are trauma sensitive practices. Traumatic events in a child's

life can lead to problems with emotion regulation, school engagement, and difficulties in social and interpersonal relationships (Nelson et al., 2020). Schools that embed an emphasis on trauma-sensitive practices integrate safety, trust, choice, collaboration, and empowerment into their systems and practices (Black et al., 2017). Although there is overlap between uptake and sustained implementation of CSMH and trauma-sensitive practices, it is important to describe shared and distinct considerations with regard to implementation determinants and strategies.



IMPLEMENTATION DETERMINANTS TO UPTAKE AND SUSTAINED IMPLEMENTATION

Despite extensive research on evidence-based practices to support students' mental health in schools, there are barriers to schools deciding to implement these strategies and following through with the implementation. Barriers to implementation include staff turnover, inadequate leadership buy-in, issues with training and planning, logistical difficulties, mental health stigma, and a misalignment of priorities (Gee et al., 2021; Splett et al., 2022). In addition to barriers, research has suggested important facilitators to implementation, such as leadership involvement and schoolwide teaming. Through understanding barriers, school teams can identify strategies to overcome or address them. A review of facilitators can suggest important leverage points to promote uptake and implementation.

Inadequate leadership buy-in limits the continued implementation of evidence-based practices in school mental health (Splett et al., 2022). When mental health interventions were implemented without the school leadership teams' input and clear approval, they were more difficult to implement and sustain (Drmic et al., 2017). Leadership teams play a key role in that they make available the necessary resources for the implementation of intervention and set the tone for buy-in across the larger school community (Gee et al., 2021). Many studies suggest that school staff can implement mental health interventions with acceptable fidelity after completing training. Some studies found that school staff are less able to implement these interventions as planned than outside mental

health professionals (Gee et al., 2021). However, staff implementation fidelity is more strongly correlated with principal's support than with the staff's personal characteristics or their capacity to implement (Debnam et al., 2013).

One barrier that that negatively impacts staff's ability to effectively implement interventions is limited time for training and planning (Splett et al., 2022). Adequate training leads to higher treatment fidelity and staff turnover only adds to this barrier. Highly-trained staff may leave, untrained staff join the team, and this leads to more time spent on training new staff to achieve acceptable fidelity. Additionally, staff turnover can reduce necessary skills and knowledge required for implementation which reduces commitment to implementation and the consistency and quality of implementation (Andreou et al., 2015). Turnover can also negatively impact collaborative team functioning (Splett et al., 2022). Thus, using train-the-trainer approaches and providing leadership training may reduce the risk that turnover or a lack of local capacity can impede implementation (Dishion et al., 2020). Extensive planning is useful to avoid logistical barriers, and limited time also affects this process. In a thematic synthesis of barriers and facilitators to implementation of psychological interventions, Gee et al. (2021) cited the most common barrier to implementation was logistical issues. Studies reported difficulties scheduling sessions around testing, class schedules, fire alarms, and assemblies. In considering facilitators



that may help overcome logistical barriers, McIntosh et al. (2013) identified a well-functioning school team as a primary facilitator in promoting schoolwide teaming supporting implementation. Indeed, well-functioning school teams that are linked to district teaming and statewide systems and practices can provide a continuum of implementation supports across scales of implementation (state, region, district, school).

Stigma related to mental health is another barrier that can impede uptake, engagement, and implementation. Stigma related to mental health needs and services has been a concern for some students and parents and could explain low student participation and parental consent (Gee et al., 2021). Interventions that promote mental health literacy hold promise for improving uptake, engagement, and implementation (Furnam et al., 2017). Through enhancing the mental health literacy of teachers, teachers may be better equipped to identify signs of mental health concerns among students. In addition, enhanced mental health literacy among parents and students may promote engagement in mental health services when suggested by a teacher or other school professional.

A systems-level barrier to the implementation of school mental health interventions is a misalignment of priorities between the health and education systems (Gee et al., 2021). Thus, it can be helpful to provide alignment across health and education policy to promote a cross-sector focus on the emotional health of youth (Gee et al., 2021). When schools lack local capacity for mental health integration, it may first be useful to consider the broader systems (district, region, state) for areas of enhancement or cross-sector integration.



USING IMPLEMENTATION SCIENCE TO IDENTIFY STRATEGIES FOR UPTAKE AND IMPLEMENTATION

Despite extensive research on evidence-based practices (e.g., Fixsen et al., 2013; Fuchs et al., 2017; Weisz & Kazdin, 2017) and policy incentives to adopt evidencebased practices in school settings, there remains limited application of research-supported practices into routine practice (Hicks et al., 2014; Owens et al., 2014). Specifically, data from multiple studies have suggested an implementation gap in education, such that knowledge, research, and theory regarding evidence-based practices in schooling are seldom incorporated into the policies and practices in a contextually relevant manner (e.g., See et al., 2016). Thus, school professionals, parents, and students are often unable to reap the benefits of school-based evidence-based practices for their social, emotional, academic, and behavioral health (Powell et al., 2014).

Implementation science is defined as the research and practice of techniques intended to improve the uptake, adaptation, delivery, and sustainability of evidence-based practices to promote greater effectiveness (Eccles & Mittman, 2006: Proctor et al., 2013). Within school settings, a growing number of scholars have advocated for the importance of attending to the strategies and principles of implementation science as a remedy to the implementation gap within education (e.g., Sanetti & Collier-Meek, 2019). As such, there is a burgeoning body of literature to inform an effective implementation plan to support the use of evidence-based practices in school settings that are linked to a district, region, and statewide context (e.g., Hustus & Owens, 2018; Sugai & Horner,

2020). These strategies span various components of successful implementation, including tailoring to the implementation context, developing stakeholder relationships, assessing for implementation readiness, supporting clinicians, providing technical assistance over time, and engaging consumers (Cook et al., 2019; Lyon et al., 2019). Additionally, many of these strategies have been adapted and applied to evidence-based practices in school mental health programming (e.g., Conors et al., 2021; Eber et al., 2020; Gaias et al., 2020; Langley et al., 2010; Olson et al., 2020)

In what follows, we draw upon the literature base to identify implementation strategies to support the uptake of evidence-based practices in school settings. Many have noted the importance of tailoring such strategies to the implementation context (Nilsen & Bernhardsson, 2019); therefore, we privilege implementation strategies, principles, and insights specific to school-based mental health programming whenever possible.



SYNTHESIZING IMPLEMENTATION DETERMINANTS TO IDENTIFY IMPLEMENTATION STRATEGIES

The present review of implementation determinants grounded in implementation science suggests five primary implementation strategies to promote uptake and sustained implementation of CSMH and traumasensitive practices: (a) training with ongoing technical assistance, (b) implementation in systems,

(c) leadership training, (d) using train-the-trainer approaches, and (e) embedding ongoing enhancements to stakeholder mental health literacy.

Training with ongoing technical assistance is the gold standard for promoting uptake and sustained implementation. Statewide systems and regional systems are linked with district systems that impact school systems. At each level, there are distinct training and technical assistance needs. Training and coaching materials for individuals to use at these different levels are helpful, as well as access to a coach who can provide tailored technical assistance over time during adoption, initial implementation, full implementation, and sustainment. Training and technical assistance should emphasize core features of CSMH and trauma-sensitive practices along with corresponding implementation plans acknowledging that tailoring is necessary during each stage of implementation.

Implementation should occur in systems. State systems, regional systems, district systems, and school systems are each important to specifically address, as well as capacity enhancing practices.

Within each system, a focus should be on funding, policies, structures, and data. The important features of funding, policies, structures, and data will promote systems enhancements and support interconnections. A focus on systems also allows for contextual tailoring at each level of implementation, thereby supporting uptake, engagement, and durability at each level.

Leadership training at the state, region, district, and school level can support a flow of leaders capable of advancing CSMH and trauma-sensitive practices. There are two primary implications of this approach to leadership development. First, leadership training reduces the risk of turnover in a key leadership positions—negatively impacting mental health systems. Second, leadership training reduces the risk of a single "champion" holding all the information or resources or exerting too much control over the process. Teams should have the authority to move forward with active and engaged leadership. Indeed, a well-functioning team is the anchor for successful promotion of CSMH.

Related to leadership training is a train-the-trainer approach. A train-the-trainer approach allows multiple individuals to have the relevant knowledge and skills to train a school team or teacher team on the promotion of CSMH and trauma-sensitive practices. Train-the-trainer approaches also help reduce the risk of turnover negatively impacting broader mental health systems.



Enhancing the mental health literacy of district and school professionals, parents, and students can support uptake and engagement in CSMH services and trauma-sensitive practices. To advance an agenda that addresses mental health literacy, a state, region, district, and school should have access to measures that capture mental health literacy as well as tailored approaches to enhancing mental health literacy, acknowledging that different individuals (e.g., school professionals, parents) may benefit from different kinds of information in different delivery pathways. When a districts and schools have enhanced mental health literacy, students' mental health needs may be identified earlier and engagement in those services may be higher. Relevant mental health literacy measures and training can be embedded statewide, in regions, and across districts.



REFERENCES

- Andreou, T. E., McIntosh, K., Ross, S. W., & Kahn, J. D. (2015). Critical incidents in the sustainability of school-wide positive behavioral interventions and supports. *Journal of Special Education*, 49, 157–167. https://doi.org/10.1177/0022466914554298
- Connors, E. H., Prout, J., Vivrette, R., Padden, J., & Lever, N. (2021). Trauma-focused cognitive behavioral therapy in 13 urban public schools: Mixed methods results of barriers, facilitators, and implementation outcomes. *School Mental Health*, 13(4), 772–790. https://doi.org/10.1007/s12310-021-09445-7
- Cook, C. R., Lyon, A. R., Locke, J., Waltz, T., & Powell, B. J. (2019). Adapting a compilation of implementation strategies to advance school-based implementation research and practice. *Prevention Science*, 20(6), 914–935. https://doi.org/10.1007/s11121-019-01017-1
- Debnam, K. J., Pas, E. T., & Bradshaw, C. P. (2013). Factors influencing staff perceptions of administrator support for tier 2 and 3 interventions: A multilevel perspective. *Journal of Emotional and Behavioral Disorders*, 21, 116–126. https://doi.org/10.1177/1063426611410571
- Drmic, I.E., Aljunied, M., & Reaven, J. (2017). Feasibility, acceptability and preliminary treatment outcomes in a school-based CBT intervention program for adolescents with ASD and anxiety in Singapore. *Journal of Autism and Developmental Disorders*, 47, 3909–3929. https://doi.org/10.1007/s10803-016-3007-y
- 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: An implementation quide. Center for Positive Behavior Interventions and Supports. University of Oregon Press.
- Eccles, M. P., & Mittman, B. S. (2006). Welcome to implementation science. *Implementation Science*, 1(1), 1, 1748–5908–1–1. https://doi.org/10.1186/1748–5908–1–1
- Fixsen, D., Blase, K., Metz, A., & Van Dyke, M. (2013). Statewide implementation of evidence-based programs. Exceptional Children, 79(2), 213-230. https://doi.org/10.1177/0014402913079002071
- Fuchs, D., McMaster, K. L., & Kearns, D. M. (2017). Evidence-based interventions for reading disabilities in children and adolescents. In L. Theodore (Ed.). Handbook of evidence-based interventions for children and adolescents (pp. 85-98). Springer.
- Gaias, L. M., Arnold, K. T., Liu, F. F., Pullmann, M. D., Duong, M. T., & Lyon, A. R. (2022). Adapting strategies to promote implementation reach and equity (ASPIRE) in school mental health services. *Psychology in the Schools*, 59(12), 2471–2485. https://doi.org/10.1002/pits.22515
- Gee, B., Wilson, J., Clarke, T., Farthing, S., Carroll, B., Jackson, C., King, K., Murdoch, J., Fonagy, P., & Notley, C. (2021). Review: Delivering mental health support within schools and colleges a thematic synthesis of barriers and facilitators to implementation of indicated psychological interventions for adolescents. *Child & Adolescent Mental Health*, 26(1), 34–46. https://doi-org.ezproxy.library.wisc.edu/10.1111/camh.12381
- Hicks, T. B., Shahidullah, J. D., Carlson, J. S., & Palejwala, M. H. (2014). Nationally Certified School Psychologists' use and reported barriers to using evidence-based interventions in schools: The influence of graduate program training and education. School Psychology Quarterly, 29(4), 469-487. https://doi.org/10.1037/spq0000059
- Hoover, S., Lever, N., Sachdev, N., Bravo, N., Schlitt, J., Acosta Price, O., Sheriff, L. & Cashman, J. (2019).

 Advancing comprehensive school mental health: Guidance from the field. National Center for School Mental Health. University of Maryland School of Medicine.



- Hustus, C. L., & Owens, J. S. (2018). Assessing readiness for change among school professionals and its relationship with adoption and reported implementation of mental health initiatives. *Child & Youth Care Forum*, 47(6), 829–844. https://doi.org/10.1007/s10566-018-9463-0
- Langley, A. K., Nadeem, E., Kataoka, S. H., Stein, B. D., & Jaycox, L. H. (2010). Evidence-based mental health programs in schools: Barriers and facilitators of successful implementation. *School Mental Health*, 2(3), 105–113. https://doi.org/10.1007/s12310-010-9038-1
- Lyon, A. R., Cook, C. R., Locke, J., Davis, C., Powell, B. J., & Waltz, T. J. (2019). Importance and feasibility of an adapted set of implementation strategies in schools. *Journal of School Psychology*, 76, 66–77. https://doi.org/10.1016/j.jsp.2019.07.014
- Nilsen, P., & Bernhardsson, S. (2019). Context matters in implementation science: A scoping review of determinant frameworks that describe contextual determinants for implementation outcomes. *BMC Health Services Research*, 19(1), 189. https://doi.org/10.1186/s12913-019-4015-3
- Olson, J. R., Coldiron, J. S., Parigoris, R. M., Zabel, M. D., Matarese, M., & Bruns, E. J. (2020). Developing an evidence-based technical assistance model: A process evaluation of the national training and technical assistance center for child, youth, and family mental health. *The Journal of Behavioral Health Services* & Research, 47(3), 312-330. https://doi.org/10.1007/s11414-020-09686-5
- Owens, J. S., Lyon, A. R., Brandt, N. E., Masia Warner, C., Nadeem, E., Spiel, C., & Wagner, M. (2014). Implementation science in school mental health: Key constructs in a developing research agenda. *School Mental Health*, 6(2), 99–111. https://doi.org/10.1007/s12310-013-9115-3
- Powell, B. J., Beidas, R. S., Lewis, C. C., Aarons, G. A., McMillen, J. C., Proctor, E. K., & Mandell, D. S. (2017). Methods to improve the selection and tailoring of implementation strategies. *The Journal of Behavioral Health Services & Research*, 44(2), 177–194. https://doi.org/10.1007/s11414-015-9475-6
- Sanetti, L. M., & Collier-Meek, M. A. (2019). Increasing implementation science literacy to address the research-to-practice gap in school psychology. *Journal of School Psychology*, 76, 33-47. https://doi.org/10.1016/j.jsp.2019.07.008
- See, B. H., Gorard, S., & Siddiqui, N. (2016). Teachers' use of research evidence in practice: A pilot study of feedback to enhance learning. *Educational Research*, 58(1), 56-72. https://doi.org/10.1080/00131881.2015.111
- Splett, J. W., Perales, K., Miller, E., Hartley, S. N., Wandersman, A., Halliday, C. A., & Weist, M. D. (2022). Using readiness to understand implementation challenges in school mental health research. *Journal of Community Psychology*, 50(7), 3101–3121. https://doi-org.ezproxy.library.wisc.edu/10.1002/jcop.22818
- Sugai, G., & Horner, R. H. (2020). Sustaining and scaling positive behavioral interventions and supports: Implementation drivers, outcomes, and considerations. *Exceptional Children*, 86(2), 120–136. https://doi.org/10.1177/0014402919855331
- Weisz, J. R., & Kazdin, A. E. (Eds.). (2017). Evidence-based psychotherapies for children and adolescents (3rd ed.). The Guilford Press.
- Zabek, F., Lyons, M. D., Alwani, N., Taylor, J. V., Brown-Meredith, E., Cruz, M. A., & Southall, V. H. (2022). Roles and functions of school mental health professionals within comprehensive school mental health systems. *School Mental Health*, 1–18. https://doi.org/10.1007/s12310-022-09535-0





