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BALANCING THE COMPONENTS OF A COMPREHENSIVE SCHOOL SAFETY FRAMEWORK

Findings From NIJ's Comprehensive School Safety Initiative Projects



By Sarah Goodrum, Ph.D., Beverly Kingston, Ph.D.,
Sabrina Arredondo Mattson, Ph.D., Susanne Argamaso, M.A.,
Amanda Matthews, M.S.W., Jody Witt, M.A.,
Center for the Study and Prevention of Violence,
University of Colorado Boulder

U.S. Department of Justice
Office of Justice Programs
999 N. Capital St. N.E.
Washington, DC 20531

Nancy La Vigne, Ph.D.

Director, National Institute of Justice

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Executive Summary

A comprehensive school safety framework requires a range of strategies, interventions, and effective ... [school safety] policies The goal for schools is to develop an integrated approach that spans the range of possible dangers, from minor misbehavior to life-threatening situations [while also] maintaining safety and order. (National Institute of Justice, 2020, p. ii)

Five Key Findings and Recommendations for a Comprehensive Approach to School Safety

1. **A comprehensive framework for school safety balances evidence-based strategies for addressing school climate, student behavior, and physical security with consideration for the school’s unique needs and resources.**

Recommendation: Schools should create multidisciplinary school safety teams that use data to guide decision-making and inform their school safety action plan; these teams should help select, implement, and monitor the programs and practices that support the plan.

The National Institute of Justice’s (NIJ) Comprehensive School Safety Initiative (CSSI) research indicates that a comprehensive approach to school safety should balance schools’ needs and resources with the best available practices for addressing three key components of school safety: school climate, student behavior, and physical security. A multidisciplinary school safety team can balance these school safety efforts by using data to guide decision-making, formulate a school safety action plan, select and implement programs, and monitor progress. The team can use a logic model to explain how the selected programs and practices are expected to improve school safety. The logic model can illustrate the connection between program activities and safety-related outcomes, which may help school staff and other stakeholders understand and appreciate the rationale for adopting a new safety-related program. During planning, teams should also identify and address with the school any unique cultural contexts shaping the experiences of staff, students, and parents, such as high levels of childhood trauma or poverty. Future research should examine best practices for integrating and balancing the key components of a comprehensive approach to school safety.

2. **A positive school climate benefits multiple student- and school-level outcomes, including academic achievement, behavior, and physical safety.**

Recommendation: Schools should administer a climate survey on an annual basis to help identify and prioritize their safety-related needs, inform the selection of evidence-based programs, and monitor progress to provide accountability and encourage continuous improvement.

School climate refers to the norms, values, relationships, and organizational structure that influence people’s feelings about a school. A positive school climate impacts school safety because it supports the student and staff relationships that promote healthy youth development, prevent problem behavior, and encourage reporting by “upstanders,” or individuals who proactively relay information about concerning behaviors to school and law enforcement officials. A positive school climate benefits students’ academic performance and attendance rates, and it is associated with lower levels of bullying, victimization, substance use, suspension, fighting, and violence. In a positive school climate, people care about and watch out for one another, and student discipline is administered fairly across all student subgroups (e.g., race/ethnicity, special education). As a critical strategy for building a safe school environment, schools should administer

a climate survey to students, staff, and parents/legal guardians on an annual or biennial basis. The climate survey results can help schools identify and prioritize their safety-related needs, select evidence-based programs for addressing those needs, and monitor progress to provide accountability and inform planning.

Because climate represents a multi-dimensional concept, climate surveys should include validated and reliable scales (i.e., multiple questions to assess each concept) on safety, relationships, setting, and experiences. In addition, since some populations are more at risk for victimization than others, climate surveys should include questions about vulnerable populations and victimization experiences, such as with respect to gender identity and sexual harassment. To support this work, schools can seek out training and technical assistance on how to disseminate, analyze, and interpret climate surveys. To improve school climate, multi-component programs yield stronger effects than single-component programs. The benefits of a climate program can take time to appear and may depend on setting, resources, and implementation. Future research should examine the causal mechanisms underlying the relationships between school climate, student behavior, and physical security.

3. A continuum of responses to student behavior problems should seek to address the underlying causes of misconduct, aggression, and violence, not just the symptoms.

Recommendation: To proactively address the underlying causes of student behavior problems and school violence, schools should adopt a multi-tiered system of supports with a range of assessment tools, referral options, and disciplinary strategies.

Research consistently finds that a “get tough” or zero tolerance approach to student misconduct is ineffective and can damage school climate, impede academic progress, and create disparities across racial and ethnic groups. Thus, schools should rely on a continuum of responses to student behavior that seeks to address the underlying causes of misconduct, aggression, and violence (e.g., trauma, depression, anxiety), not just the symptoms. Schoolwide positive behavior and bullying prevention programs do not have to be costly or complicated and can provide a proactive and preventive approach to student behavior issues. Effective implementation of these programs requires school leaders’ support, staff buy-in, and consistent application. Threat assessment and management provide tools for evaluating a student’s risk for targeted violence and, when used effectively, may improve perceptions of school climate, reduce suspensions, and prevent violence. Future research should examine whether threat assessment procedures can adequately evaluate risk, as current research is examining the effect of the process on student outcomes.

4. Research on the effectiveness of physical security technologies in schools is limited, but there are several widely accepted physical security technologies and practices for schools.

Recommendation: Schools should be discerning when selecting physical security technologies, considering the research on both the effectiveness of the technologies and the potential unintended consequences for students.

There is limited research on the effectiveness of physical security technologies and practices in schools. Widely accepted and reasonably sound physical security technologies and strategies in schools include emergency operations planning, lockdown drills, surveillance systems, and law enforcement collaboration. Schools can use a security assessment survey to evaluate their current physical security technologies and practices, and the results from the assessment survey, along with information about the school’s resources, capacity, and context, can guide the selection and implementation of new security measures. CSSI and related research provide inconsistent evidence on the effect of school resource officers and other school-based law enforcement officials on school climate, student behavior, and physical security. Future research should examine the effect of various physical security technologies and strategies on perceptions of and experiences with safety in schools, as well as the relationships between physical security measures, school climate, and student behavior.

5. Due to schools' limited resources and capacity, the implementation of school safety programs and practices often differs from guidelines, diminishing their impact.

Recommendation: To support the effective implementation of school safety programs and practices, steps should be taken to consider the school's readiness for implementation, monitor the fidelity of program implementation, and provide resources for ongoing technical assistance to support implementation.

CSSI studies reveal that the implementation of safety-related programs and practices proves challenging in schools facing competing demands, limited resources, and uneven staff buy-in. Schools need strategies for identifying and addressing common barriers to program implementation, such as staff readiness, student trauma, and school size or layout. CSSI studies identified several strategies for improving implementation fidelity, including a readiness survey, an implementation inventory tool, and ongoing technical assistance. First, a readiness survey can examine school staff's motivation and capacity for adopting a new program or practice, and the readiness results can be reviewed and addressed in meetings with the school's multidisciplinary safety team. Proactively addressing readiness barriers can improve school administrators' buy-in, schools' readiness, and team functioning for delivering a comprehensive approach to school safety. Second, schools and researchers can use an implementation inventory tool to monitor and support program implementation at the system level. Third, training on safety-related topics should not rely on a one-and-done approach. Instead, to institutionalize best practices for school safety, school staff should receive ongoing training and technical support on how to deliver evidence-based programs and practices. Future research should examine best practices for anticipating and addressing barriers to the implementation of school safety programs in schools.

BACKGROUND

The Comprehensive School Safety Initiative

Over the last 20 years, researchers, practitioners, and policymakers have consistently recognized the need for a comprehensive approach to school safety. Identifying the key components of a comprehensive approach and the ideal way to balance and implement those components, however, has proved challenging. To address this challenge, the National Institute of Justice's (NIJ) Comprehensive School Safety Initiative (CSSI) awarded approximately \$246 million in grants from 2014 to 2017 to support nearly 100 research projects on school safety. The initiative sought to advance knowledge on the root causes of school violence, support and evaluate programs for school safety, and develop a comprehensive approach to school safety (National Institute of Justice, 2020). These CSSI projects examined and evaluated a wide range of school safety programs and practices (e.g., bullying prevention, threat assessment, school resource officers). To date, the initiative has produced more than 150 publications and several web-based resources (Daniels, 2019; National Institute of Justice, 2020; Stohlman & Cornell, 2019). The volume of information produced is substantial.

This report summarizes and synthesizes the findings from CSSI reports and related research.¹ Reports and published articles were identified by NIJ staff. Additional research articles on school safety topics were identified by conducting a search for articles published by CSSI principal investigators (see Appendix A for a description of the process) and by examining the references noted in CSSI publications and other relevant research. The questions guiding the report include:

- What have we learned about the components of a comprehensive framework for school safety from CSSI projects and related research?
- How can schools implement and balance those components to support a comprehensive approach to school safety?

Taken together, these findings reflect the diversity of programs and practices available for school safety and the challenges with implementing them in America's schools.

School Safety Trends and Approaches

While many types of school-based violence have decreased in the United States over the last 10 years, many others have increased or remained the same, presenting challenges to school staff seeking to keep students and schools safe (Carlton et al., 2017; Irwin et al., 2021; Turanovic & Siennick, 2022). From 2009 to 2019, students ages 12 to 18 reported fewer criminal victimizations, weapon possessions, and physical fights at school but more threats and weapons-related injuries (Irwin et al., 2021).² In addition, the rate of criminal victimization was higher at school (30 per 1,000 students) than away from school (20 per 1,000 students) in 2019 (Irwin et al., 2021). Bullying victimization, which impacts mental health and school attendance, also remained a concern: 22% of students ages 12 to 18 reported having been bullied at school in 2019 (Irwin et al., 2021). And while school-related homicides are rare, accounting for less than 2% of all youth homicides in the United States (Holland et al., 2019), the *Indicators of School Crime and Safety: 2020* report found that the number of school shootings with fatalities increased from five in the 2009–2010 school year to 32 in 2018–2019 and 27 in 2019–2020 (Irwin et al., 2021; Turanovic et al., 2019).³

The need for clear guidance on best practices for school safety remains critical. Knowing where to start, how to start, and what aspects of school safety are most important to address proves challenging to schools facing numerous demands (e.g., academic achievement, mental health support, school safety), limited resources (e.g., staff, capacity, budget), and competing messages (e.g., be supportive but also discipline students). NIJ’s investment in research on school safety represents a major milestone in our knowledge of practices for violence prevention in the United States. This report provides schools with evidence-based best practices for a comprehensive approach to school safety, using key findings from CSSI-supported research.

A Comprehensive Framework for School Safety

Addressing the Three Key Components

A comprehensive framework for school safety balances the key components of school safety with consideration for the school’s unique needs and resources (National Institute of Justice, 2020). The three main components of NIJ’s comprehensive school safety framework are: (1) **school climate**, or the norms, values, relationships, teaching and learning, and organizational structure that influence people’s feelings about the school; (2) **student behavior**, referring to proactive, consistent, and developmentally appropriate strategies for monitoring and addressing student conduct; and (3) **physical security**, which can include access control, security, preparedness, and response. CSSI projects and other school safety studies indicate that a wide range of strategies support these three components, including building a positive school climate, encouraging positive student behavior, addressing problematic student behavior, creating a reporting tip line for “upstanders” — individuals who proactively relay information about concerning behaviors to school and law enforcement officials (Amman et al., 2015) — adopting restorative justice practices, and using threat assessment and management procedures. Research also suggests that the strategies schools use to build a comprehensive approach to safety should balance their needs and resources with the best available practices for addressing these three key components. Too much emphasis on one component may lead to neglect of or an unintended consequence with another.

While there are essential and evidence-based practices for school safety, there is no one-size-fits-all approach. What works for one school may not work for another (National Institute of Justice, 2020), and several factors can shape the success of a school’s comprehensive framework for safety, including the school’s leadership, staff readiness, and students’ needs. As part of the balancing act, schools should celebrate the safety-related goals they have already accomplished and acknowledge the cultural contexts shaping staff’s, students’, and parents’ experiences with the school. The school’s multidisciplinary school safety team can and should lead the school’s safety planning efforts (NTAC, 2018).

Establishing a Multidisciplinary School Safety Team

The **multidisciplinary school safety team** includes professionals from different perspectives and experiences (e.g., school administrator, school counselor or psychologist, and law enforcement professional). The team is tasked with coordinating, supporting, and monitoring the school’s comprehensive approach to safety, and teams may vary in their size, membership, and representation (NTAC, 2018). The team is responsible for gathering information on current school safety practices, developing the school’s safety action plan, and coordinating school safety trainings and programs (e.g., lockdown drills, threat assessment, bullying prevention) (Cornell & Maeng, 2020; Kingston et al., 2018). The team also engages stakeholders, communicates findings and plans, and provides accountability (Jackson, Fixsen, & Ward, 2018; Kingston & Wilensky, 2018). Engaging stakeholders and securing their buy-in facilitates the effective implementation of school safety measures (Gray et al., 2019; see also Higgins, Weiner, & Young, 2012; Hurlburt et al., 2014; Saldana & Chamberlain, 2012; Sosna & Marsenich, 2006), and building trusting relationships and identifying common goals can promote shared decision-making and encourage sustained change (Domlyn et al., 2019; see also Heath & Heath, 2010; Sinek, 2009). Finally, team members’ relationships (e.g., leadership, trust) and readiness (e.g., capacity, motivation) may influence program implementation and outcomes (Eklund, Meyer, & Bosworth, 2017; Kingston et al., 2018; Scaccia et al., 2015).

Building a School Safety Action Plan

Addressing all three components of a comprehensive approach to school safety requires that schools balance their safety needs with their capacities and resources. This balancing act starts by schools gathering information to identify their needs, setting priorities for their safety action plan, and implementing evidence-based safety programs and policies. In school settings, data sources can include climate surveys (e.g., staff, students, parents), behavior surveys (e.g., Youth Risk Behavior Surveillance Survey), administrative data (e.g., attendance/truancy; measures of discipline, such as office referrals, suspensions, and expulsions; and assessments of threats and suicide risks), surveillance videos (e.g., hallway interactions), and readiness assessments (e.g., organization, staff). Examining climate, behavioral, and administrative data by students' demographic characteristics can reveal patterns in students' experiences and behaviors (e.g., by gender, race/ethnicity, special education, LGBTQIA+, socioeconomic status), which may allow for more tailored prevention and intervention efforts (Turanovic & Siennick, 2022).

Using data to inform decision-making empowers schools to recognize their strengths, identify their challenges, and select the evidence-based programs and strategies best suited to addressing their unique needs (Cornell et al., 2009; Jackson, Fixsen, & Ward, 2018; Kingston et al., 2018; National Research Council and Institute of Medicine, 2009; Stephan et al., 2015; Ward, Farmer, & SISEP Center, 2020).⁴ Teams can use data to set priorities, create short- and long-term goals, and assign tasks. Institutionalizing these data-gathering and analysis procedures in schools can create a continuous improvement process, which allows schools to build on their successes and shore up their weaknesses as a standard practice.

Implementing Programs

Once a school has identified its specific school safety strengths and gaps using a data-driven process, it can select and implement the evidence-based school safety programs that best meet its specific needs and local context (Puddy & Wilkins, 2011). The field of **implementation science** recognizes that actual program delivery often differs from guidelines, which can impact program quality and diminish outcomes (Domlyn et al., 2019; Durlak & DuPre, 2008; Fixsen et al., 2005; Fixsen, Blasé, & Van Dyke, 2019). Implementation barriers can include school administrators' leadership, staff buy-in, students' trauma, the school's physical size and layout, and an alternative versus traditional school setting (Gray et al., 2019; Saavedra et al., 2019; Sumi et al., 2019). In studies of schoolwide programs for positive behavior and supportive disciplinary practices, administrator participation and staff buy-in proved key to consistent and effective implementation (Gray et al., 2019; Sumi et al., 2019; for an example, see section on [Best Practices for School Climate](#)).

A readiness survey can estimate a school's capacity (e.g., knowledge, skills, leadership) and motivation (i.e., perception of program as a priority) for adopting, implementing, and supporting one or more safety-related programs (Kingston et al., 2018). Readiness discussions can address the importance of the program, the data informing the decision to adopt the program (e.g., rates of bullying victimization), and the school staff's roles and responsibilities within the program (e.g., 30 minutes of work per week, consistent reinforcement of program in classroom) (Dymnicki et al., 2021; Sumi et al., 2019). Intentionally addressing readiness barriers can improve school administrators' leadership and buy-in and schools' readiness and team functioning for implementing a comprehensive approach to school safety (Dymnicki et al., 2021; Kingston et al., 2018). In a study of 58 high schools, Bradshaw and colleagues (2021, 57) noted:

Although the schools in this study all expressed a high degree of interest in training in these specific [evidence-based programs or EBPs] at recruitment into the project ... full implementation of the EBPs rarely occurred.

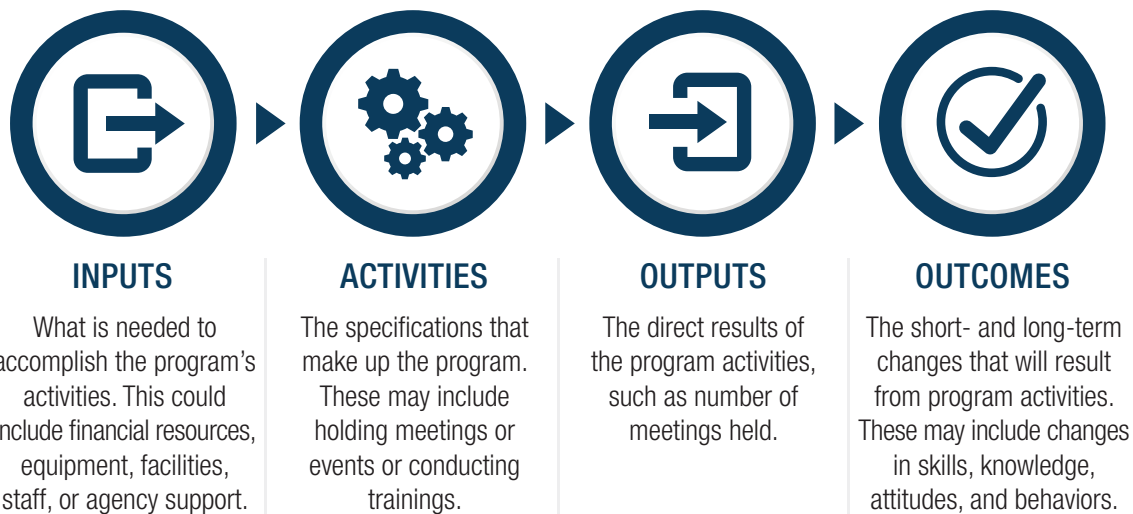
To monitor and support implementation at the system level, schools and researchers can use an implementation inventory tool. The **Schoolwide Evaluation Toolkit** tracks implementation fidelity (Horner et al., 2004; Sugai et al., 2001). The **Interconnected Systems Framework-Implementation Inventory** proved beneficial in helping school staff and researchers monitor and support the implementation of an integrated and multi-tiered system for positive behavior and mental health supports (Splett et al., 2020; Weist et al., 2020).

Creating a Logic Model

Prior to implementing an individual program or a comprehensive approach to school safety, the multidisciplinary school safety team should consider using a logic model to illustrate the causal relationship between the (a) prevention and intervention efforts (e.g., Positive Behavioral Interventions and Supports [PBIS], bullying prevention, threat assessment), (b) risk and protective factors (e.g., connection to school, supportive relationships), and (c) student behavior and school outcomes (e.g., bullying, fighting, attendance) (see Bowen, Gwiasda, & Brown, 2004; Elliott, 2009; Jessor & Turbin, 2014; Katz et al., 2019).

A logic model operationalizes the abstract concepts that inform a program's purpose. For example, if a school's multidisciplinary safety team aims to positively impact their school's climate, the logic model can show the relationship between their intervention (e.g., PBIS), student behaviors (e.g., bullying), and school climate (e.g., connection to school). The model can graphically depict the relationship between the inputs, activities, outputs (e.g., numbers served), and outcomes (e.g., reduction in bullying, increases in connection) (Katz et al., 2019). The logic model can guide stakeholders on the implementation process and help school staff anticipate barriers and evaluate the impact of their work. The model can also inform how school staff balance the different components of a comprehensive framework for school safety.

The CSSI study on Safe Communities Safe Schools relied on a logic model to guide researchers' and stakeholders' implementation and evaluation of a comprehensive approach to school safety using a randomized controlled trial with 46 middle schools (Dymnicki et al., 2021) (see Appendix B). The logic model for Safe Communities Safe Schools illustrated the relationship between the intervention components (a multidisciplinary team, effective information-gathering system, and school safety action plan), school climate, student risk and protective factors, and student outcomes.



Implementation Lessons Learned From the School District of Philadelphia

Gray et al. (2019) conducted an exploratory study to learn how K–5 and K–8 schools in the School District of Philadelphia managed student discipline after implementation of districtwide policy and programmatic changes designed to improve school climate and reduce the use of out-of-school suspension and punitive disciplinary practices. The district’s policy and programmatic changes included a focus on PBIS and restorative practices (e.g., peer mediation, conflict resolution, teacher conferences, community service). The 18-month study — which included focus groups, one-on-one interviews, and field-based case studies involving 97% of the K–5 and K–8 schools in the district — aimed to understand the contextual challenges schools faced when implementing nonpunitive disciplinary practices and policies.

Differences between school contexts in disciplinary approaches (e.g., punitive and nonpunitive), communication and collaboration patterns, and staff morale and support were identified and categorized into three school profiles: (1) reactive and autonomous (i.e., punitive disciplinary practices); (2) under-resourced and noncohesive (i.e., staff and resource constraints, inconsistent disciplinary practices, and poor administrator-teacher relationships); and (3) collaborative and relational (i.e., teachers were supported and punishment was nonpunitive). Students in collaborative and relational schools were suspended less often and performed at a higher academic level than those attending comparison schools.

Four case studies provided an in-depth examination of the three school profiles and revealed the tremendous diversity in Philadelphia’s school contexts. The case studies also highlighted the relationship between schools’ obstacles and outcomes and the race and poverty level of their students; more affluent schools typically had fewer obstacles and better student outcomes. The authors concluded that efforts to shape school climate and disciplinary practices need to be tailored during implementation in ways that recognize the strengths and challenges of the school’s specific context. They recommended strong school leadership, along with training for teachers on the harmful effects of exclusionary discipline practices and the benefits of restorative approaches to discipline concerns (e.g., improved school climate, student reintegration, healing harm).

KEY COMPONENTS

A positive school climate: (1) encourages students, staff, and parents to share their concerns about safety and troubling behavior (e.g., bullying, self-harm, suicide, threats) with school staff, law enforcement officials, or through an anonymous reporting system and (2) offers each student a positive relationship with at least one adult in the school. (NTAC, 2019)

School Climate

School climate has been recognized as critical to understanding social disorder and crime for more than 100 years (Dewey, 1916; Payne, 2018; Perry, 1908). Following a study of 37 school attacks, the U.S. Secret Service and U.S. Department of Education noted:

The principal objective of school violence reduction strategies should be to create cultures and climates of safety, respect, and emotional support within educational institutions. (Fein et al., 2004, 11)

A positive school climate is consistently associated with higher levels of academic achievement and student attendance and lower levels of bullying, victimization, substance use, suspension, fighting, and violence (Bryson & Childs, 2018; Cuellar, Coyle, & Weinreb, 2021; Fein et al., 2004; Lindstrom Johnson et al., 2019a; Nickerson, 2018; NTAC, 2018; Pollack, Modzeleski, & Rooney, 2008; for a review, see Thapa et al., 2013). Students who feel more connected to their school, a key dimension of climate, have significantly higher attendance rates, better academic performance, and less victimization (Cuellar, Coyle, & Weinreb, 2021).

Why does school climate impact school safety? A positive school climate benefits individual students and the overall school environment by fostering the interpersonal relationships that promote healthy youth development, prevent problem behavior, and encourage upstander reporting (Crichlow-Ball & Cornell, 2021; Gregory, Cornell, & Fan, 2011; Kuperminc, Leadbeater, & Blatt, 2001; MacNeil, Prater, & Busch, 2009; Payton et al., 2008; Pollack et al., 2008; Way, Reddy, & Rhodes, 2007). In these environments, trusting, respectful, and caring relationships are prioritized (Elliott, 2009; Kingston et al., 2018; Porowski, O’Conner, & Passa, 2014). Hallmarks of a positive school climate include treating all staff and students with respect, administering student discipline consistently and fairly across student subgroups (e.g., race/ethnicity, special education), supporting the resilience and emotional well-being of students and staff, and guarding against harmful stereotypes (e.g., race/ethnicity, socioeconomic status, academic and cognitive ability, sexual orientation) (Dwyer, Osher, & Warger, 1998; Elliott, 2009; Koon, 2013; NTAC, 2018).

While the evidence documenting the importance of climate for school safety remains clear, the definitions of and measures for school climate vary across studies and organizations (Berkowitz et al., 2016; Bradshaw et al., 2021; Cornell et al., 2021; Lindstrom Johnson et al., 2019a; Payne, 2018). The lack of consistency has created a “translational gap” between school climate research and practice in the United States (Payne, 2018; see also Cornell, Mayer, & Sulkowski, 2021). In other words, the latest research on a positive school climate does not always get applied to current practice. We aim to address the translational gap by organizing the evidence on school climate into four sections: (1) defining school climate, (2) assessing school climate, (3) improving school climate, and (4) best practices for school climate.

Defining School Climate

The U.S. Department of Education's (ED) and National School Climate Council's (NSCC) definitions of school climate frequently appear in CSSI research and other publications. These definitions emphasize the nature of experiences, practices, interpersonal relationships, and organizational structure in schools (ED, 2016; NSCC, 2007; Yoder et al., 2017) (see exhibit 1). Taken together, the literature suggests that school climate is a multi-dimensional concept that refers to the feelings and attitudes elicited by a school's norms, values, relationships, and organizational structure.

The ED and NSCC each recognize several dimensions of school climate in common, including safety, relationships, setting, and experience patterns (Bradshaw et al., 2021) (see exhibit 1). Although similar concepts appear in these two definitions of school climate, the lack of standardization in the field has created confusion for researchers and practitioners (Payne, 2018). Future research should clarify the best definition for school climate, with a single set of dimensions, and federal agencies could explore collaborating on guidelines for school climate. In the meantime, school administrators should select the school climate survey and related school climate dimensions that most closely match their school's safety needs and interests.

Exhibit 1: School Climate Definitions and Dimensions

	U.S. Department of Education (ED, 2016)	National School Climate Center (NSCC, 2007)
DEFINITION	School climate describes “how members of the school community experience the school, including interpersonal relationships, teacher and other staff practices, and organizational arrangements.”	School climate is “based on patterns of [people’s] experience of school life and reflects norms, goals, values, interpersonal relationships, teaching and learning practices, and organizational structures.”
DIMENSION	13 DIMENSIONS	14 DIMENSIONS
Safety	SAFETY <ul style="list-style-type: none"> • physical safety • emotional safety • bullying/cyberbullying • substance abuse • emergency readiness/management 	SAFETY <ul style="list-style-type: none"> • sense of physical safety • sense of social-emotional security • rules and norms
Relationships	ENGAGEMENT <ul style="list-style-type: none"> • civic/linguistic competence • relationships • school participation 	INTERPERSONAL RELATIONSHIPS <ul style="list-style-type: none"> • respect for diversity • social support — adults • social support — students
Setting	ENVIRONMENT <ul style="list-style-type: none"> • physical environment • instructional environment • discipline • physical health • mental health 	INSTITUTIONAL ENVIRONMENT <ul style="list-style-type: none"> • physical surroundings • connectedness/engagement • social inclusion
Academics	See “Instructional Environment” above	TEACHING & LEARNING <ul style="list-style-type: none"> • support for learning • social and civic learning
Staff	See “Relationships” above	STAFF ONLY <ul style="list-style-type: none"> • leadership • professional relationships
Social Media	See “cyberbullying” in the “Safety” section	SOCIAL MEDIA <ul style="list-style-type: none"> • sense of safety online and on electronic devices

Assessing School Climate

Survey Instruments

School climate surveys represent the primary means for assessing school climate, and when administered and reviewed on an annual or semiannual basis, they represent a best practice for school safety. Schools should select and implement the climate survey that best meets their needs. The U.S. Department of Education, National School Climate Council, and other research centers and educational organizations offer school climate surveys (see ED, 2016; NSCC, 2022). The climate surveys used in CSSI projects included, but were not limited to, the Virginia Secondary School Climate Survey, Maryland Safe and Supportive Schools Survey, Pittsburgh School District’s Teaching and Learning Conditions Survey, and University of Colorado Boulder’s Safe Communities Safe Schools Climate Surveys for students, staff, and parents. Gathering climate data from multiple sources (e.g., students, staff, parents) and gathering qualitative data through open-ended questions can triangulate the information and provide rich context for interpreting quantitative results (Bradshaw et al., 2021).

Survey Questions

School climate surveys frequently use scales to measure the different dimensions of climate (see exhibit 2). Scales use multiple survey questions to measure complex concepts that cannot be assessed directly.⁵ Schools can contact survey developers to learn how each tool measures climate and to determine which survey might work best for their needs (e.g., survey length, accessibility, cost).

Because engaging in problematic behavior and experiencing victimization can sometimes lead students to have negative perceptions of climate, climate surveys should include measures of behavior (e.g., I pushed, shoved, or hit another student) and perception (e.g., I feel safe; teachers at this school care about me) or perceived norms (e.g., bullying is a problem at this school) (Bradshaw et al., 2021). Including measures of student behavior enables schools to monitor the impact of their interventions on school climate and student behavior.

Exhibit 2: Sample Indicators From Scales in School Climate Surveys

Dimension	Scale	Sample Indicators*	Source
Safety	Perceptions of Safety and Supervision	<ul style="list-style-type: none"> I feel safe at my school. There is an anonymous (without anyone knowing it was me) way to report unsafe or dangerous behavior. 	University of Colorado Boulder’s Safe Communities Safe Schools Student Climate Survey (University of Colorado Boulder, n.d.)
	Rules and Consequences	<ul style="list-style-type: none"> There are clear rules about student behavior. Teachers can handle students who disrupt class. 	Maryland Safe and Supportive Schools Survey (Bradshaw et al., 2014)
	Victim of Aggression	<ul style="list-style-type: none"> During the past 12 months, has another student threatened to hit or hurt you? During the past 12 months, has another student attacked you with a weapon trying to seriously hurt you? 	University of Colorado Boulder’s Safe Communities Safe Schools Student Climate Survey
	Prevalence of Teasing and Bullying	<ul style="list-style-type: none"> Students in this school are teased about their clothing or physical appearance. Bullying is a problem at this school. 	Virginia Secondary School Climate Survey (Virginia Department of Education, 2023)

Dimension	Scale	Sample Indicators*	Source
Safety	Sexual Harassment	<ul style="list-style-type: none"> During the past 12 months, how often did another student ... make unwelcome sexual comments, jokes, or gestures that made you feel uncomfortable? During the past 12 months, how often did another student ... bother you by repeatedly asking you to go out or do something with him/her that you did not want to do? 	Virginia Secondary School Climate Survey
	Alcohol Use	<ul style="list-style-type: none"> During your life, have you drunk wine, beer, or other alcohol? During the past 30 days, on how many days did you have five or more drinks of alcohol in a row, that is, within a couple of hours? 	University of Colorado Boulder's Safe Communities Safe Schools Student Climate Survey
Relationships	Student Engagement	<ul style="list-style-type: none"> I like this school. I am proud to be a student at this school. 	Virginia Secondary School Climate Survey
	Connection to Teachers	<ul style="list-style-type: none"> My teachers listen to me when I have something to say. My teachers tell me when I do a good job. 	Maryland Safe and Supportive Schools Survey
	Positive Feelings and Attitudes Toward Diversity	<ul style="list-style-type: none"> I feel comfortable being around students from other cultures or ethnic groups. Students in my school respect young people of other cultures or ethnic groups. 	University of Colorado Boulder's Safe Communities Safe Schools Student Climate Survey
	Trusting Relationships	<ul style="list-style-type: none"> Besides my family, there is an adult who I can trust. There is someone at school I can talk to if I have a problem. 	University of Colorado Boulder's Safe Communities Safe Schools Student Climate Survey
	School Opportunities for Prosocial Involvement	<ul style="list-style-type: none"> In my school, students have lots of chances to help decide things like class activities and rules. There are lots of chances for students in my school to get involved in sports, clubs, and other school activities outside of class. 	University of Colorado Boulder's Safe Communities Safe Schools Student Climate Survey
Setting	Good Condition of Campus	<ul style="list-style-type: none"> My school building is clean. I like the way my school looks. 	University of Colorado Boulder's Safe Communities Safe Schools Student Climate Survey
	School Disciplinary Structure	<ul style="list-style-type: none"> The school rules are fair. Students at this school are only punished when they deserve it. 	Virginia Secondary School Climate Survey
	Student Connectedness	<ul style="list-style-type: none"> I feel like I belong. Students help one another. 	Maryland Safe and Supportive School Survey
	Whole-School Connectedness	<ul style="list-style-type: none"> Students and staff feel pride at this school. I like coming to school. 	Maryland Safe and Supportive School Survey
Academics	Academic Expectations	<ul style="list-style-type: none"> My teachers expect me to work hard. My teachers really want me to learn a lot. 	Virginia Secondary School Climate Survey
	Support	<ul style="list-style-type: none"> Teachers at school help students with their problems. Students who need help for their problems are able to get it through school. 	Maryland Safe and Supportive School Survey

Dimension	Scale	Sample Indicators*	Source
Staff	Teacher/Staff Collegiality	<ul style="list-style-type: none"> Teachers and other school staff work well with one another at this school. Teachers and other school staff members trust one another at this school. 	Virginia Secondary School Climate Survey
	Respect From Teachers	<ul style="list-style-type: none"> Teachers at this school respect each other's opinions. I believe I am respected by other teachers at this school. 	University of Colorado Boulder's Safe Communities Safe Schools Student Climate Survey
	Support	<ul style="list-style-type: none"> School administrators support teachers' efforts to maintain discipline in the classroom. The school leadership consistently supports teachers. 	Teaching and Learning Conditions Survey (Pittsburgh Public Schools, n.d.)
Social Media	Social Media	<ul style="list-style-type: none"> Many students in my school will try to stop other students from saying mean things to others online or through the phone. Most students in my school use the internet or the phone in ways that make each other feel better. 	Comprehensive School Climate Inventory (NSCC, 2023; Augustine et al., 2018)
	Bullying Victimization	<ul style="list-style-type: none"> I was bullied with mean or hurtful messages, calls or pictures, or in other ways on my cell phone or over the internet (computer). 	University of Colorado Boulder's Safe Communities Safe Schools Student Climate Survey

* Full scales are not included; instead, selected items are included as examples of questions for the dimension on a climate survey.

While most school climate surveys do not include questions about **sexual harassment**, more than one-third of high school students in a statewide sample reported experiencing at least one instance of sexual harassment by other students in the last year, suggesting that measures for sexual harassment would be a valuable addition to climate surveys (Crowley et al., 2019). Indeed, experiences with or witnessing sexual harassment can erode feelings of safety and security. The Virginia Secondary School Climate Survey offers a sexual harassment scale addressing: (1) unwelcome sexual comments or jokes, (2) sexual rumors, (3) unwelcome and repeated requests for a date, and (4) unwanted physical contact of a sexual nature (Crowley et al., 2019).⁶

Many climate studies find that perceptions of and experiences with safety and school connectedness vary by students' **demographic characteristics** (e.g., race/ethnicity, gender, sexual orientation). For example, African American and Hispanic students perceived their schools as less safe and reported higher rates of victimization from bullying and aggression at school (Cuellar, Coyle, & Weinreb, 2021). Thus, climate surveys should include questions about race/ethnicity, gender, and sexual orientation to help schools identify vulnerable populations and address disparities across subgroups (Bryson & Childs, 2018; Cuellar, Coyle, & Weinreb, 2021; Turanovic & Siennick, 2022).

The analysis and interpretation of climate data should also consider the school's context, which can impact students' perceptions. Bryson and Childs (2018) found that African American students reported more positive views of several climate dimensions than white and Hispanic students, including student connectedness, student-teacher relationships, fairness, and respectfulness; it appears that the racial and ethnic diversity of the high schools in the study (50%–55% students of color) diminished African American students' cultural challenges and enhanced their peer support (Bryson & Childs, 2018). These findings suggest that aggregated school-level measures of climate may overlook critical differences in specific student subgroups' perceptions of and experiences with climate (Bryson & Childs, 2018).

In addition to questions about race and ethnicity, climate surveys should include developmentally appropriate questions about students' **gender identity and sexual orientation** (Temkin et al., 2017). Research consistently finds that LGBTQIA+ students report higher rates of bullying victimization; thus, climate surveys should include age-appropriate measures for students' sexual identity, sexual attraction, and gender identity (Myers et al., 2020; Temkin et al., 2017; Turanovic & Siennick, 2022). The study authors recommended these questions appear at the beginning of the survey to increase the likelihood of student response and support students' perceptions of inclusivity and representation (Temkin et al., 2017). In addition, school administrators should ensure students' responses remain confidential during the survey by making sure students cannot see others' responses on a laptop screen. When presenting the results, confidentiality can be provided by reporting findings in the aggregate and by making sure there are enough cases in each category to protect students' identities (Temkin et al., 2017).⁷

Improving School Climate

As noted earlier, creating a positive school climate is critical to school safety, but improving school climate remains challenging for schools. Confusion remains on how to use a climate survey to support a comprehensive approach to school safety. In Georgia, the state's department of education provides guidance on the use of climate data (Carlton et al., 2017). The state uses data from school climate surveys, student health behavior surveys, and discipline and attendance records to rate each school's climate (Carlton et al., 2017). The rating, along with a climate report, helps schools identify and address their climate gaps (Carlton et al., 2017). However, not all states offer schools this kind of support. Thus, schools could use clear guidelines, training, and technical assistance on how best to use their climate data to guide their safety plans. Bradshaw and colleagues (2021, 230) have also noted that "there is an urgent need for additional evidence of models that are effective at improving school climate and testing the theory of change process by which climate impacts school safety and other violence related outcomes."

Understanding the Causal Relationship Between School Climate and Student Behavior

Bradshaw and colleagues (2021) note that the mechanisms for and direction of the relationship between school climate and various student outcomes remains unclear (see also Benbenishty et al., 2016; Berkowitz et al., 2016). Social control theorists would argue that schools with a positive climate promote a sense of attachment and commitment to the school, which encourages engagement in prosocial behavior, while schools with a negative school climate model reinforce antisocial behavior among students, including aggression and violence (Bradshaw et al., 2021). According to the social development model, social bonding is pivotal to influencing human behavior, and this bonding process is the same for prosocial and antisocial behavior. When opportunities and skills are adequate and performance is reinforced, a bond develops between the individual and the socializing agent (e.g., person, group). For youth, this bond fuels the desire to listen to and live by the socializing agent's standards (e.g., parent, teacher). The social development model would posit that schools with positive climates provide consistent opportunities, skills, and reinforcement for prosocial behavior.

The pathways through which school climate may foster prosocial behavior and discourage problem behavior may be different (see Jessor, 2016). Prosocial supports — including supportive relationships, role models, skill building, and recognition — predict prosocial behavior (Jessor & Turbin, 2014; Kim et al., 2015; Lerner & Benson, 2003), and informal social controls — such as monitoring activities and restricting opportunities — provide protection from and reduce the likelihood of problem behavior (Jessor & Turbin, 2014). While the pathways between support, control, and school climate deserve further study, CSSI studies and other safety-related research suggest that a positive school climate is likely one that offers students consistent prosocial support and informal social controls.

Best Practices for School Climate

Schoolwide multi-component climate interventions have been associated with stronger effects than single-component climate interventions (Komro et al., 2016; Tofi & Farrington, 2011). These schoolwide climate efforts usually include a multidisciplinary school safety team, a data-driven approach to decision-making, and thoughtfully selected and implemented evidence-based programs within a multi-tiered system of supports (MTSS) (Bradshaw et al., 2021; Kingston et al., 2018; Osher et al., 2014). The school climate strategies and interventions supported by CSSI projects include: (1) using a climate survey on an annual or biennial basis; (2) creating a structured and supportive school environment; and (3) building an MTSS framework of prevention and intervention programs and disciplinary measures.

Use a Climate Survey

Climate survey data help school officials identify and prioritize their violence prevention and school safety needs (e.g., bullying, mental health), select evidence-based programs for addressing those needs (e.g., bullying prevention, threat assessment), and monitor progress to provide accountability and inform planning (Kingston et al., 2018; Lindstrom Johnson et al., 2019a; Yoder et al., 2017). As described earlier, schools should ensure the survey uses rigorously developed measures that meet the highest standards of reliability and validity, and they should disseminate the results widely to ensure that school staff members and other stakeholders have access to them (Cornell et al., 2021).

Reviewing and interpreting climate survey results, however, can prove challenging to school staff already juggling other reporting obligations and facing limited resources. One study found that although 84% of school staff expressed an interest in climate survey results, fewer than 33% saw the results or used the results for planning (Debnam, Edwards, & Cornell, 2021). Thus, if unfamiliar with the use of climate surveys, district and school administrators should seek out training and enlist external support to guide survey administration, interpretation, and institutionalization (Debnam, Edwards, & Cornell, 2021; Dymnicki et al., 2019; Kingston et al., 2018).

Create a Structured and Supportive School Environment

A holistic approach to school climate starts with a philosophy for how school staff address students' behavior, mental health, and academic performance. An **authoritative school climate**, which provides warm and supportive responses and high academic and behavioral expectations, is one example of a proactive and positive approach to the school environment. The authoritative school climate concept comes from Cornell and colleagues' application of Baumrind's (1968) typology of parenting models to school settings; the typology includes four categories: authoritative, authoritarian, permissive, and disengaged or neglectful (Heilbrun, Cornell, & Konold, 2018; Gregory et al., 2010; Huang & Cornell, 2018).

According to this explanation, an authoritative school climate establishes high standards for student conduct and warm support for student challenges (Heilbrun, Cornell, & Konold, 2018; Gregory et al., 2010; Gregory & Cornell, 2009; Huang & Cornell, 2018). In a statewide sample of more than 70,000 students and teachers across 298 high schools, an authoritative school climate was associated with higher levels of student engagement, and higher levels of student engagement were associated in turn with higher academic achievement (e.g., graduation rates, standardized tests); thus, student engagement may mediate the relationship between school climate and academic outcomes (Konold et al., 2018). An authoritative school climate was also associated with lower rates of suspension (Heilbrun, Cornell, & Konold, 2018).

A **collaborative and relational school climate** is another example of a positive approach that takes a coordinated, supportive, and tiered response to student discipline where nonpunitive disciplinary practices are encouraged and teachers are supported (Gray et al., 2019). In these environments, students and staff perceive the conduct rules as clear and the discipline for conduct violations as strict but fair (Konold et al., 2018). Interestingly, teachers' cultural competence may promote students' experiences with school by increasing their engagement with and decreasing their disconnection from school (Bottiani et al., 2020). A survey of ninth graders in a predominantly African American high school found that students' frequency of exposure to racial discrimination (e.g., personal experiences, observations) influenced their perception of the school's climate, such that as exposure to discrimination increased, levels of engagement with the school and positive attitudes toward teachers decreased (Bottiani et al., 2020). However, teachers' cultural competence may offer a way to counteract the students' negative life experiences outside of school.

Build a Multi-Tiered System of Supports

A multi-tiered system of supports (**MTSS**) is a widely used and highly recommended framework for organizing a continuum of evidence-based prevention and intervention strategies designed to address students' behavioral and mental health and academic needs in schools. MTSS fosters a positive school climate by recognizing that some students have more intensive needs than others, and it proactively anticipates and coordinates the efforts designed to meet those needs. MTSS includes three levels of prevention and intervention: (1) universal prevention efforts (Tier 1) for all students (e.g., PBIS, social-emotional learning); (2) early intervention efforts (Tier 2) for at-risk students (e.g., mentoring relationships, suicide screen); and (3) targeted intervention efforts (Tier 3) for students with identified problem behaviors (e.g., treatment) (Bradshaw, Pas, & Waasdorp, 2019; Dymnicki et al., 2021; Fisher & Hennessy, 2016; Lewis et al., 2019; NTAC, 2018; Osher et al., 2016; Overstreet & Chafouleas, 2016; Stephan et al., 2015).⁸

Research suggests that MTSS positively impacts outcomes for students, classrooms, and schools, reducing reports of bullying and decreasing rates of conduct referrals, suspensions, and juvenile justice referrals (Bohnenkamp et al., 2021; Bradshaw et al., 2021; Lewis et al., 2019; see also Dwyer, Osher, & Hoffman, 2000). Training school staff on an MTSS approach to behavior yields a positive effect on classrooms (Bradshaw et al., 2021). The National Association of School Psychologists' *Foundations of MTSS Success: From Research to Practice* provides resources for the effective implementation of MTSS in schools (Los, 2018).

Additionally, multiple studies recognize **PBIS** as a promising schoolwide strategy for improving school climate (Bradshaw et al., 2021; Cuellar, Coyle, & Weinreb, 2021; Gray et al., 2019). PBIS is a behavioral support program designed to help school personnel: (1) organize evidence-based practices by MTSS tiers, (2) improve the implementation of those practices, and (3) maximize academic and behavioral outcomes for students (Center on Positive Behavioral Interventions and Supports, n.d.). Tier 1 prevention efforts seek to teach all students the norms and expectations for prosocial behavior, as well as the skills for building emotional resilience, solving interpersonal problems, and respecting differences (Dwyer, Osher, & Hoffman, 2000). One CSSI study in which 30 schools adopted PBIS concluded:

[C]limate-improvement efforts like PBIS hold great promise for improving student outcomes, as well as the experience of school for staff, students, and families ... [School districts should] embrace a PBIS implementation approach that is tailored to the challenges of its context ... that emphasizes differentiated training and intensive support for all adults, and pairs climate efforts with a focus on trauma-informed care. (Gray et al., 2019, 8)

A principal participating in the study explained:

Our general philosophy starts and ends with PBIS. We are a PBIS school. We have worked really hard to make that a part of our culture. We have four rules — four expectations. Be prompt. Be polite. Be prepared. And be productive. My philosophy is that we teach and we reteach those expectations. We recognize kids and provide them with incentives based on whether or not they are meeting the expectations. If they are not meeting expectations, then we restore them as a part of a consequence around the expectations. (Gray et al., 2019, 17)

As with other prevention efforts, the effective implementation of PBIS can prove challenging, with many schools expressing strong interest in the program but adopting it unevenly (Bradshaw et al., 2021). A closer examination of the implementation barriers indicates that school and community resources and the extent of students' trauma can hinder a school's ability to successfully adopt PBIS and nonexclusionary forms of discipline, which can diminish program impact and outcomes (Gray et al., 2019).

Recognizing the need to both encourage positive behavior and prevent negative behavior among students in schools, Plettinger and colleagues (2021) evaluated the effectiveness of integrating PBIS (Tier 1) with the Olweus Bullying Prevention Program (Tier 2) through a randomized controlled trial. Their findings showed that the integrated model was effective, particularly at reducing bullying victimization, reducing cyberbullying victimization and perpetration, increasing clarity about bullying policies, increasing teachers' perceptions that bullied students would report being victimized, and improving aspects of the school's climate (e.g., reducing students' fears about bullying) (Plettinger et al., 2021).

A **comprehensive mental health response and prevention program** offers another approach to providing students with support and services at all levels of MTSS (Lewis et al., 2019). Lewis and colleagues (2019) examined the effect of a comprehensive, five-level MTSS framework for emotional and behavioral health crisis response and prevention (EBH-CRP) program, using a randomized controlled design with 20 schools. This type of program can prove beneficial when schools identify high rates of trauma in their student populations (Gray et al., 2019; Melde et al., 2020). For example, one study of students in a Michigan school district found that approximately 90% of students had experienced one form of victimization in their lives and 79% had experienced multiple victimizations or victimizations across multiple contexts (Melde et al., 2020).

In these settings, a more extensive MTSS framework may better support student behavior prevention and intervention strategies. After two years, schools without the EBH-CRP program — which provided five tiers of support (instead of three), culturally competent and evidence-based strategies, and a continuum of support services for students — reported 56% more suspensions and 75% more office referrals than schools with the EBH-CRP program (Lewis et al., 2019). In another CSSI study, a comprehensive mental health program — with staff training on Youth Mental Health First Aid, Crisis Intervention Training for Youth, and Assessment for Child and Adolescent Needs and Strengths — produced positive outcomes for individual students (e.g., academic achievement, suspension, truancy, delinquency) and staff (i.e., training, awareness), but not the overall school community (Childs et al., 2020).

Effective prevention cannot wait until there is a gunman in a school parking lot. We need resources such as mental health supports and threat assessment teams in every school and community so that people can seek assistance when they recognize that someone is troubled and requires help. (Interdisciplinary Group on Preventing School and Community Violence, 2021, 1)

Student Behavior

The effective management of student behavior requires that schools address the underlying causes of problem behavior through programs and practices that enhance the protective factors (e.g., supportive relationships) and mitigate the risk factors (e.g., deviant peers, victimization) for problem behavior and violence (Jessor & Turbin, 2014; Kim et al., 2015; Turanovic et al., 2019). In a meta-analysis of 693 studies, Turanovic and colleagues (2019, 4) found that the most common risk factors for aggression and delinquency among students at school included “antisocial behavior, deviant peers, victimization, peer rejection, and antisocial attitudes.” The best predictors of students’ victimization included “prior victimization, low social competence, peer rejection, violent school context, and negative school climate” (Turanovic et al., 2019, 4). The predictors of and patterns in victimization at school can reflect social hierarchies among students, placing some students at greater risk for peer aggression than others (Turanovic et al., 2019).

A comprehensive approach to student behavior and school safety strikes a balance between the enhancement of protection and the mitigation of risk, and it can positively impact a wide range of student outcomes, including disciplinary referrals, suspensions, and juvenile justice referrals at the secondary school level and reported incidents of bullying at the primary and secondary school levels (Bohnenkamp et al., 2021; Polanin et al., 2021). To address student behavior, schools should create clear expectations for norms, conduct, and discipline; address conduct violations consistently and fairly across all student groups (e.g., race/ethnicity, gender, special education); and use a progressive series of disciplinary responses for handling problem behavior (Gray et al., 2019). This continuum recognizes that some students are at higher risk for problem behavior and victimization than others (CDC, 2021; Collier et al., 2018; Dahlberg & Krug., 2002; Turanovic et al., 2019; Waasdorp et al., 2019).

The 2019 Youth Risk Behavior Surveillance Survey found that 20%–30% of high school students were bullied at school, 19% seriously considered suicide, 9% attempted suicide, 16% were electronically bullied, 22% were in a physical fight, 8% were in a physical fight at school, and 7% were threatened or injured with a weapon at school (CDC, 2020). A meta-analysis of longitudinal research on the effect of K–12 school violence revealed that any experience with school violence

negatively impacted students' mental health, academic performance, and criminal or delinquent activity (Polanin et al., 2021). Students identifying as LGBTQ, students with disabilities, and students from racial or ethnic minorities were more vulnerable to bullying victimization than their peers (Asian American & Pacific Islander Bullying Prevention Task Force, 2016; National Academies of Sciences, Engineering, and Medicine, 2016; Myers et al., 2020; Turanovic et al., 2019). Obese and overweight youth reported increased risk of being bullied, of perpetrating bullying after victimization, and of perpetrating cyberbullying, suggesting that the experience of victimization may contribute to a cycle where bullying leads to social isolation and diminished conflict resolution skills (Waasdorp et al., 2019). Boys were more likely to be perpetrators and victims of physical aggression than girls, and boys were more likely to be victims of verbal aggression than girls (Stubbs-Richardson et al., 2017). Perpetration of school violence increased depression, absenteeism, and future rule violations, and experience with chronic victimization (e.g., bullying, fighting, and peer victimization) diminished mental health outcomes (e.g., depression), but not academic performance or delinquent activity (Polanin et al., 2021).

Addressing Student Behavior

For decades, school safety researchers, policymakers, and practitioners have debated the merits of a get-tough versus be-supportive approach to student misconduct. Significant research, however, demonstrates that the get-tough (or zero tolerance) approach — which relies on school discipline policies that mandate harsh punishment (e.g., suspension, expulsion) for student misconduct without consideration for the situation or life experience (e.g., trauma) — does not improve school safety or student behavior (Collier et al., 2018; Mears et al., 2019). The get-tough approach can also create unintended consequences, including the school-to-prison pipeline (APA, 2008; Curran, 2019; Hirschfield, 2018). In addition, the target-hardening strategies (e.g., surveillance cameras, metal detectors) associated with the get-tough approach demonstrate little to no association with school violence and victimization (Turanovic et al., 2019).

A series of studies found that an **authoritative school climate** — characterized by warm and supportive responses and high academic and behavioral expectations — yielded positive outcomes, including increased student engagement, lower aggression, and lower suspensions (Berg & Cornell, 2016; Cornell & Maeng, 2020; Cornell et al., 2021; Gill, Ashton, & Algina, 2004; Huang & Cornell, 2018). Using data from more than 75,000 middle school students, Huang and Cornell (2018) found that an authoritative school climate was associated with lower rates of suspension. Results from the studies on an authoritative approach may be useful in defining the key elements of the approach that minimize confusion, create consistency, and ensure disciplinary measures are applied fairly.

For schools or districts with students experiencing high rates of trauma or adverse life events, shifting to an **emotional and behavioral health crisis-oriented response to student incidents** (instead of a discipline-oriented response) can benefit students' well-being, academic performance, and school climate. This support-oriented approach allows school staff to address the underlying causes of students' problem behavior, instead of the symptoms (Bohnenkamp et al., 2021; see also Turanovic & Siennick, 2022). Students in **collaborative and relational schools** were less likely to be suspended and were more likely to achieve higher levels of academic performance, even when controlling for demographic characteristics (Gray et al., 2019). Interestingly, programs seeking to improve student behavior simultaneously improve school climate (Gray et al., 2019). The successful implementation of a nonpunitive approach to student behavior requires strong school leadership, trauma-informed training for staff, and quiet spaces and mental health supports for students experiencing difficulties at school (Gray et al., 2019).

Assessing Student Behavior

Student behavior is typically measured through school-based **administrative reports** (e.g., attendance, discipline, threat assessment) and **self-report surveys** (e.g., climate survey, Youth Risk Behavior Surveillance Survey). Administrative reports reveal which student behavior concerns have been mentioned to and documented by school officials (e.g., referrals, suspensions, expulsions, threat assessments), while surveys capture a wider range of behaviors, attitudes, and perceptions and may offer a more accurate reflection of student behavior, including those undetected by school officials. Gathering data from multiple sources (e.g., reports, surveys) and perspectives (e.g., students, staff, parents) provides a well-rounded view. To ensure discipline is administered fairly across all student groups (e.g., race, ethnicity, special

education), the U.S. Department of Education has recommended that schools review their discipline policies, analyze their discipline data, and address disparities (Petrosino et al., 2017).

Self-report surveys of students provide information on student prosocial and problem behaviors. Self-report behavior surveys (e.g., Youth Risk Behavior Surveillance Survey) measure a variety of student behaviors (e.g., behaviors that contribute to violence or substance use, mental and behavioral health concerns, and involvement in prosocial behaviors). Some surveys (e.g., Communities That Care Youth Survey, Safe Communities Safe Schools Survey) also include measures of the risk and protective factors that contribute to those behaviors (e.g., association with antisocial peers). Disparities in student behavior by race and sex are likely to be more pronounced in administrative data compared to self-report data (Elliott, 2022). As noted in the school climate section, self-report surveys should use reliable and validated measures with appropriate recall reporting periods. It is critical that the administrators of self-report surveys use protected mechanisms for assuring the privacy and confidentiality of the survey data and communicate those protections to survey participants. Additionally, school climate and student behavior surveys can be combined to reduce the survey burden on school staff and students.

Surveys of school staff can reveal experiences with and perceptions of student conduct problems from the perspectives of administrators, teachers, and others. For instance, 13% of teachers in one school district reported theft and property damage victimizations at school, and just under 10% of teachers experienced sexual harassment; these victimization experiences reduced teachers' feelings of connection to the school, satisfaction with their job, and interest in a teaching career, particularly when the victimization experiences were recurring (Moon, McCluskey, & Morash, 2019). The negative effect of repeat victimizations on teachers' experiences makes behavioral interventions for students targeting teachers important to address immediately (Moon, McCluskey, & Morash, 2019).

Identifying and Addressing School Staff Misconduct

It is estimated that approximately 10% of students will experience sexual misconduct before high school graduation (Shakeshaft, 2004), but no reliable national data source exists to document or track school employees' sexual misconduct (Grant, Shakeshaft, & Mueller, 2019; Henschel & Grant, 2018). The U.S. Every Student Succeeds Act of 2015 sought to prohibit school staff who sexually abused students from obtaining employment in a subsequent school setting, but as of 2018, only four states had fully complied with the legislation and 39 states had no plans to develop policies or laws to address the legislation, indicating a need to educate state leaders and lawmakers on this issue (Grant, Wilkerson, & Henschel, 2018). Documenting and tracking school employees' sexual misconduct is an important, but missing, component of school safety policies and planning (Henschel & Grant, 2018).

Improving Student Behavior

Improving student behavior requires a schoolwide and multi-tiered approach that addresses the underlying causes of behavior concerns (e.g., trauma, grievance, bullying victimization), not the symptoms (see Bohnenkamp et al., 2021; Evans et al., 2019; Turanovic & Siennick, 2022). Addressing the causes allows schools to simultaneously enhance the protective factors (e.g., social support, coping skills) that reduce the likelihood of problem behavior and mitigate the risk factors (e.g., delinquent peers, trauma, bullying) that increase the likelihood of problem behavior (Jessor & Turbin, 2014; Kingston et al., 2020).

Best Practices for Student Behavior

Managing student behavior represents a critical component of school safety that encompasses students' behavior problems, mental health, trauma, and discipline (National Institute of Justice, 2020). Based on CSSI studies and other school safety research, best practices for addressing student behavior include: (1) adopting a bullying prevention program, (2) creating fair discipline policies and monitoring disciplinary practices, (3) supporting upstander reporting and response, (4) adopting restorative practices for conflict resolution, and (5) using threat assessment and management procedures.

Adopt a Bullying Prevention Program

For 20 years, bullying has been recognized as detrimental to school safety, particularly as it damages school climate and student well-being (Erickson, 2001; Fein et al., 2004). Bullying refers to “intentional and repeated acts of aggression that occur through direct verbal (e.g., threatening, name calling), direct physical (e.g., hitting, kicking), and indirect forms (e.g., spreading rumors, influencing relationships, cyberbullying) of behavior” (Bradshaw et al., 2018, 724; Lindstrom Johnson et al., 2019b). Bullying often arises in relationships where a power or status differential exists, and it negatively affects students' perceptions of climate and safety (Olweus, 1993). Bullying prevention programs can target all three MTSS levels through work in schools, in classrooms, or with individual students.

A meta-analysis of 22 articles published from 2000 to 2017 revealed students in bullying prevention programs scored significantly lower on bullying perpetration and victimization than their peers, and the effectiveness of the programs did not vary by the type of parental component used (e.g., hand-outs, in-person meetings, home activities, training/workshops) (Huang et al., 2019). Both boys and girls tended to respond to bullying victimization by withdrawing or by feeling hurt and diminished (Stubbs-Richardson et al., 2017). Girls were more likely than boys to respond with a “tend and befriend” approach to the perpetrator and to reach out to others for support following their victimization (Stubbs-Richardson et al., 2017). Gender differences in response to bullying victimization should be understood when developing prevention and intervention programming.

The **Olweus Bullying Prevention Program** contributed to significant reductions in students' and teachers' reports of bullying perpetration and victimization, but the program demonstrated a smaller effect on school climate, school safety, and teacher support (Sullivan & Publow, 2021). The Olweus Bullying Prevention Program is a schoolwide program designed to reduce and prevent school bullying in elementary, middle, and high schools. At the school level, the program includes an assessment of bullying, the formation of a committee to coordinate implementation, and the development of a process that ensures adult supervision of students outside the classroom. The classroom intervention includes defining and enforcing rules against bullying, discussions and activities to reinforce anti-bullying values and norms, and active parental involvement in the program. Students with a history of bullying or victimization also receive program support.

The **Bullying Classroom Check-Up** is an integrated coaching and guided practice strategy that supports teachers in detecting and intervening in bullying behaviors in the classroom (Bradshaw, Pas, & Waasdorp, 2019; Pas, Waasdorp, & Bradshaw, 2018). A two-year study found that training teachers in the Bullying Classroom Check-Up program made them more likely to report bullying concerns (e.g., teasing, hitting, ignoring/leaving out) and to intervene by talking with other staff, referring to a counselor, addressing the perpetrator, or talking with the victim in the first year of the study, but the results were not sustained in the second year (Bradshaw, Pas, & Waasdorp, 2019; Pas, Waasdorp, & Bradshaw, 2018).

The **No Bully System** program offers adult and peer support interventions to prevent bullying and was studied using a cluster randomized experimental design with 24 elementary schools (Hanson et al., 2019). The program trains an adult moderator (solutions coach) to facilitate meetings with six to eight students (solutions team), including the bully (or bullies), pro-social students, and bystanders; the solutions coach hosts three meetings to build empathy and create peer-generated solutions (Hanson et al., 2019). Bullying victimization rates decreased by 30% in the treatment group, but there was no impact on bullying perpetration or school climate (Hanson et al., 2019). However, high rates of participant attrition, high rates of staff turnover, and low levels of implementation fidelity make the results inconclusive.

Until recently, many bullying prevention programs targeted all students, not specific perpetrators or victims. The **Coping Power** program provides intensive Tier 3 interventions for perpetrators in high school. The **Early Adolescent Coping Power** program provides Tier 3 intervention for specific middle school students showing risk factors for aggression and adjustment difficulties; the program is delivered over 25 sessions (45–50 minutes) during school hours to small groups of six to seven students identified and referred by teachers as showing risk for bullying; the program also includes eight to 10 individual student sessions (30 minutes), parent group sessions (45–50 minutes), and teacher professional development sessions (Bradshaw et al., 2017). A small, randomized pilot study included 30 students, and the results provided preliminary evidence that the Early Adolescent Coping Power participants demonstrated improvements (Bradshaw et al., 2017). According to teachers' reports, students showed improvement in 20 of 21 scales in the Behavioral Assessment System for Children Version 2 (BASC-2) with anxiety being the only exception; according to students' self-reports, 12 of the 21 BASC-2 scales revealed improvements (Bradshaw et al., 2017).

Create Fair Discipline Policies and Monitor Discipline Data

Discipline can provide another strategy for managing student behavior, but research suggests that exclusionary discipline practices (e.g., suspension, expulsion) negatively impact future student behavior and get disproportionately applied to students of color (Porowski, O'Conner, & Passa, 2014). Thus, the management of student behavior in school should start with a review of the school's discipline data by student subgroups (e.g., race/ethnicity, gender, special education) (Porowski, O'Conner, & Passa, 2014). This review proves important for two reasons. First, reviewing discipline and threat assessment data can help school staff determine if discipline and assessments are being disproportionately administered to some student subgroups (Cornell et al., 2019; Porowski, O'Conner, & Passa, 2014). Huang and Cornell (2018) found that the odds of receiving out-of-school suspension were more than three times higher for Black students than white students and almost two times higher for students not living with both parents, but disparities decreased when student variables (e.g., disability status, gender, academic ability) and school variables were included in the analysis. A comprehensive framework for school safety alone may not reduce the disproportionality of suspensions for students of color (Bohnenkamp et al., 2021).

Second, the perception that discipline is administered fairly across student subgroups impacts school climate (Petrosino et al., 2017; see also Cornell et al., 2019). The Institute of Education Sciences' Analyzing Student-Level Disciplinary Data: A Guide for Districts provides instructions on this process (Petrosino et al., 2017). If problematic patterns are identified in disciplinary practices, school staff should reflect on the reasons for the disparity, seek out training to address the disparity (e.g., anti-racism training, trauma-informed training), and monitor the discipline data for improvement (Porowski, O'Conner, & Passa, 2014).

Schoolwide Intervention for Supportive Discipline Practices

A qualitative study of the START on Time! program (n=15 schools), which seeks to support safe hallway interactions and timely class arrivals in schools, appeared to improve student behavior, school culture, and attendance. The program trains staff to conduct “sweeps” of hallways and common areas before school and during passing periods. School staff reported that the program improved hallway behavior and school climate. The program also encourages schools to update their student conduct code and staff handbooks to incorporate the behavior expectations for hallway interactions, classroom arrivals, and staff sweeps. School staff describe the program as a success. One teacher noted:

Our tardy sweeps have been so impactful because everybody is working together as a team. Before, coaching staff were not involved; they lived in [their] own world and we lived in our own world. [But now] they are helping us with tardy sweeps. (Sumi et al., 2019, 10)

School administrators play a critical role in the quality of the implementation of the START on Time! program. To encourage staff buy-in, administrators can assist with the hallway sweeps and provide staff with positive feedback (e.g., “thank you,” “great job”) when they are seen monitoring hallways and encouraging timely arrivals; administrators can further reinforce the program by celebrating milestones (e.g., decreased tardiness) with rewards for staff (e.g., lunch). Future research should examine the effect of the program on quantitative measures of school climate, student behavior, and attendance.

Support Upstander Reporting and Response

Upstander reporting and response encourages observers to shift from being bystanders to being “upstanders” who proactively relay information about concerning behaviors to school and law enforcement officials (Amman et al., 2015). In almost all of the more than 170 averted cases in the National Policing Institute’s Averted School Violence Database, upstanders’ willingness to report concerning behavior to school or law enforcement officials provided critical information for investigating and intervening in a person’s plan to cause harm (see National Policing Institute, n.d.; Langman & Straub, 2019). Tip lines support upstander reporting by offering a protected and anonymous (or confidential) way for students and others to report to school and law enforcement officials their safety-related concerns about another’s behavior or communications (e.g., bullying, abuse, threat, suicidal ideation, drug use) via a website, phone, email, text, or app (Planty et al., 2019, 2020; Schwartz et al., 2016). The tip line can therefore help counteract the “code of silence” that discourages adolescents from coming forward (Planty et al., 2020).

Approximately half of public middle and high schools in the United States have a tip line, and more than half of these tip lines are actively monitored 24 hours a day, seven days a week, to provide two-way dialogue and a quick response (Planty et al., 2020). Upstander tips most frequently come from students (57%) and school staff (25%) (Daniels, 2019). To improve students’ willingness and ability to report concerns, they need training on how and when to use a tip line or report concerns to a trusted source (Planty et al., 2020; Stohlman & Cornell, 2019). Schools typically educate students on how and when to use a tip line during school assemblies, classroom discussions, peer discussions, and community events (Planty et al., 2020). Since social media can provide a platform for airing and escalating interpersonal conflicts among adolescents (Melde et al., 2020), upstander training should include information on how and when to report threats or concerns communicated online (e.g., submit a screenshot of a social media post with the tip) (Planty et al., 2019, 2020). Educating students on threat assessment and the importance of reporting safety-related concerns can increase their willingness to report (Stohlman & Cornell, 2019).

Consider Adopting Restorative Practices

Restorative practices (or restorative justice programs) provide an alternative to zero tolerance disciplinary measures, and they offer an effective alternative to exclusionary discipline practices (e.g., suspension, expulsion) (Augustine et al., 2018). Restorative practices seek to bring victims and those who have harmed them together to talk about the harm, the effect it had on the victim and community, and the steps toward rebuilding relationships, and they are being increasingly used in the U.S. criminal justice system (Zehr, 2002; Gonzalez, 2012). Research on the effectiveness of restorative justice practices, however, yields mixed results.

Two CSSI studies examined the effect of restorative practices in school settings. First, a randomized controlled trial of 44 schools examined the **Pursuing Equitable and Restorative Communities (PERC) Whole-School Change program**, which requires staff-wide support (Augustine et al., 2018). The terms of the program include communication, responsivity, restoration, and distinguishing between the deed and the doer (Augustine et al., 2018). Eleven essential elements define the program, such as small impromptu conferences, responsive circles, and reintegration management (Augustine et al., 2018). Suspension rates declined by 36% in PERC schools, compared to 18% in non-PERC schools; suspension rates for African American students and students from low-income families in PERC schools also declined, reducing disparities (Augustine et al., 2018). Interestingly, this restorative program revealed some negative effects, including a decline in academic outcomes for middle school students and no change in suspension for male students, students with disabilities, and students with violent behavior or weapons possession (Augustine et al., 2018).

Second, 24 middle and high schools were randomly selected to receive either the **School-Based Teen Courts (SBTC)** program or a non-SBTC program to evaluate the effectiveness of the restorative practices in a randomized trial. SBTC improved high school students' satisfaction and decreased their delinquent peer associations (Smokowski, Evans, & Rose, 2020). In SBTC schools, student-reported violence declined and bullying victimization decreased by 47% (compared to 22% in schools with the non-SBTC intervention) (Smokowski, Evans, & Rose, 2020). As with efforts to improve school climate, the shift from a punitive to a restorative approach to student misconduct requires thoughtful attention to relationships, communication, support, and staff buy-in (Sandwick, Hahn, & Ayoub, 2019). Teen court participants reported increases in self-esteem and decreases in violence, school problems, and delinquent peers (Smokowski et al., 2018), but increases in peer pressure and decreases in friend support (Smokowski, Evans, & Rose, 2020). The changes in participants' peer pressure and friend support may reflect a shift from antisocial to prosocial bonds (Smokowski, Evans, & Rose, 2020).

Lessons Learned on Using Restorative Justice Programs in Schools

A qualitative study on experiences with and perceptions of restorative justice practices among 100 participants across five New York schools identified six lessons for a strong restorative justice approach to student misconduct:

1. Build relationships and trust with staff, students, families, and the community.
2. Dismantle rigid student-staff hierarchies to improve perceptions of equity.
3. Encourage staff buy-in through communication and engagement (e.g., staff described seeing a restorative justice circle unfold as a powerful and impactful experience).
4. Support the institutionalization of the program and a cultural shift in conflict resolution by dedicating staff and space.
5. Create a range of social supports for students facing adversity, using culturally responsive staff.
6. Engage student leaders to encourage the education of peers and awareness among students.

Restorative justice practices provide a holistic and relational approach to conflict resolution in schools, which supports a positive cultural shift in schools and communities.

(Sandwick, Hahn, & Ayoub, 2019)

Use Threat Assessment and Management

Threat assessment and management procedures create a process for evaluating the likelihood that a student will perpetrate targeted violence and for monitoring their subsequent behavior and communications. The U.S. Secret Service and U.S. Department of Education recommend that all schools have threat assessment and management procedures, a multidisciplinary threat assessment team, and threat assessment response management supports (e.g., counseling, follow-up) (Fein et al., 2004; NTAC, 2018). Threat assessment teams should include three to five members from multidisciplinary perspectives (e.g., school administrator, mental health professional, and law enforcement) and should complete training on threat assessment and management procedures (Fein et al., 2004; NTAC, 2018). The supports for threat assessment response management should be included within and draw upon the school's MTSS framework (see Cornell & Maeng, 2020). Threat assessment research identifies patterns across threat assessment cases, school discipline, and student demographics, as well as challenges with implementation fidelity.

Threat Assessment Cases

In a study of more than 3,000 cases, threats varied by grade level, indicating a need to consider developmental age during assessment (Burnette, Konold, & Cornell, 2020). For example, first grade students were twice as likely to threaten to kill compared to ninth grade students, and ninth grade students were more likely to attempt their threats than 10th and 12th grade students (Burnette, Konold, & Cornell, 2020). Cases involving a substantive threat classification (i.e., poses an ongoing risk to others) tended to include warning behaviors (e.g., history of violence, weapons use, threats), older students, bomb or knife references, and harm to self and others more than cases involving a transient threat classification (i.e., not serious) (Burnette, Datta, & Cornell, 2018). Only 2.5% to 3.3% of threats were attempted (Burnette, Datta, &

Cornell, 2018; Cornell et al., 2018), but substantive threats were 36 times more likely to be attempted than transient threats, providing legitimacy for teams' assessments (Burnette, Datta, & Cornell, 2018; see also Cornell & Maeng, 2020). Current research is examining the potential unintended consequences for a student whose behavior was assessed.⁹

School Discipline

Schools using the Comprehensive Student Threat Assessment Guidelines expelled students at lower rates than comparison schools (Maeng, Cornell, & Huang, 2020). The assessment of the threat as substantive or transient influenced disciplinary outcomes; substantive threats frequently led to out-of-school suspension, school placement changes, or legal action (Burnette, Datta, & Cornell, 2018; Burnette et al., 2019). Weapons possession and a higher threat level were correlated with a higher likelihood of suspension, alternative placement, and legal consequences (Cornell et al., 2018).

Student Demographics

When examining student disciplinary outcomes overall, Black students were three times more likely and Hispanic students were almost two times more likely than white students to receive a suspension. However, when examining student disciplinary outcomes following a threat assessment, racial and ethnic disparities did not appear in rates of suspension, expulsion, or legal consequences (Cornell et al., 2018). Following a review of almost 2,000 threat assessment cases across more than 700 schools, Cornell and colleagues (2018) found no statistically significant racial or ethnic differences in the disciplinary or legal consequences from threat-assessed students. To monitor the impact of threat assessment across subgroups, schools should review their threat assessment data for patterns by race/ethnicity and special education status.

Implementation Fidelity

The evidence suggests that threat assessment represents a critical and useful tool for evaluating a student's risk for violence within a comprehensive approach to school safety — but like other school safety measures, it should be implemented with fidelity (Goodrum et al., 2018, 2019, 2022; MSDHSPSC, 2019). Two post-shooting investigations over the last five years have identified weaknesses in the way threat assessment and management protocols and procedures were implemented with students of concern, including the evaluation of risk and the response management for the student (Goodrum et al., 2018, 2019, 2022; MSDHSPSC, 2019). Schools should seek out training and technical assistance to support their threat assessment policies, procedures, and management with students exhibiting concerning behavior; when difficult cases arise, schools should seek out subject matter experts and mental health service providers to assist with the evaluation and monitoring of the student.

Physical Security

Comprehensive school safety “requires balancing physical security with a nurturing school climate.” (Johns Hopkins University, 2016, 402)

Addressing Physical Safety and Security

Physical safety represents the main goal of all school safety work and a critical component of a balanced and comprehensive approach to school safety (National Institute of Justice, 2020). **Physical security** (i.e., access control, security, preparedness, and response) provides a means for supporting physical safety, and it refers to the architectural design, controlled access, and maintenance of staff and students' safety in buildings and on campus (see National Institute of Justice, 2020). Little research, however, exists on the effectiveness of these physical security measures or the reasons schools select one measure over another (Johns Hopkins University, 2016). Two CSSI projects summarized information on the most frequently used school safety technologies and experts' opinions on their use (Johns Hopkins University, 2016; Schwartz et al., 2016).

A wide range of security measures are available to schools, and these measures fall into two broad categories: technologies and strategies. **School security technologies** (i.e., devices or tools designed to promote safety and prevent violence in schools) range in sophistication from low-tech to high-tech. Low-tech tools include lights, doors, and locks; high-tech tools include surveillance cameras, anonymous tip lines, and metal detectors (Johns Hopkins University, 2016; King & Bracy, 2019; NTAC, 2018; Planty et al., 2020). Johns Hopkins University’s National Criminal Justice Technology Research, Test and Evaluation Center identified eight types of technologies currently being used in U.S. K–12 schools, and RAND identified 12 (see exhibit 3) (Johns Hopkins University, 2016; Schwartz et al., 2016). Both reports concluded that school safety technology has not been rigorously evaluated (Johns Hopkins University, 2016; Schwartz et al., 2016)

Exhibit 3: Types of Security Technologies in K–12 Schools

Types of School Security Technologies	
Johns Hopkins (2016)	RAND (2016)
<ul style="list-style-type: none"> • Access control • Alarms and sensors • Communications • Surveillance • Weapons detection • Software • Other systems • Lighting 	<ul style="list-style-type: none"> • Entry control equipment • School-site alarms and protection systems • Communications technology (e.g., radios) • Emergency alerts • Video surveillance technology • Metal detectors and X-ray machines • Identification technology (e.g., visitor badges) • Social media monitoring (i.e., scanning content) • Tracking systems (e.g., GPS) • Maps of schools/bus routes (e.g., geographic information systems) • Violence prediction technology (e.g., location/timing of misbehavior) • Anonymous tip lines

School security strategies seek to support physical safety and prevent violence through architectural design, operations planning, and interpersonal relationships; these strategies include crime prevention through environmental design, emergency operations planning (e.g., lockdown drills), and school-based law enforcement (ED, 2013; Fisher & Hennessey, 2016; Johns Hopkins University, 2016; Magliozzi, 2018; McKenna & White, 2018; Schwartz et al., 2016).

The school security technologies and strategies most commonly encountered by students include surveillance cameras, metal detectors, metal detector wands, lockdowns, and cell phone restrictions, suggesting an emphasis on an authoritarian approach to safety (Cuellar & Coyle, 2021). The least commonly encountered school security strategies include drug testing, drug dog searches, conflict resolution, and peer mediation (Cuellar & Coyle, 2021). Schools with larger percentages of Black and Hispanic students were more likely to use “high security” measures, such as locked doors, restroom visit restrictions, and visitor sign-ins (Curran, Fisher, & Viano, 2020). In a district where almost 89% of the student body was nonwhite, African American students reported more encounters with “high security” strategies than white students (Kupchick & Ward, 2014).

It remains unclear how these encounters impact student behavior or school climate (Cuellar & Coyle, 2021). Research on lockdown drills in K–12 schools is limited and the results are mixed. One qualitative study found that lockdown drills made students feel safe and helped them prepare for real lockdown situations (Cobbina et al., 2019). Future research should examine the complex relationships between physical security, school climate, and student behavior in U.S. schools across student subgroups.

Assessing Physical Security

No research methods or measures are currently available for evaluating the effectiveness of physical security technologies, and most physical security measures have not been rigorously evaluated (Johns Hopkins University, 2016; Schwartz et al., 2016). As a result, much of the information we have about the effectiveness of these technologies and strategies comes from anecdotal accounts, vendor demonstration projects, and surveys on perceptions of safety, which has led schools to adopt technologies without knowing the effect they will have on safety (Johns Hopkins University, 2016). Several studies on perceptions of and experiences with physical security measures examined lockdown drills, surveillance cameras, and law enforcement presence in schools.

Perceptions and Impact of Lockdown Drills

There is limited research and inconsistent evidence on the impact of lockdown drills in K–12 schools. Only one CSSI study examined their impact, finding in a qualitative study that lockdown drills increased students' feelings of safety (Cobbina et al., 2019). Other studies on lockdowns have focused on the drills' impact on skills improvement, preparedness perceptions, safety perceptions, and mental health effects. A study evaluating behavioral skills training with kindergarten students using a multiple baseline design showed increases in correct behaviors during a lockdown (Dickson & Vargo, 2017). Another study evaluating the acquisition of knowledge and perceptions of safety with lockdowns used a post-test-only design and showed significantly higher knowledge of lesson plan content and drill procedures among the treatment group and no group differences in anxiety or perceptions of school safety between the treatment and control groups (Zhe & Nickerson, 2007).

Studies examining the Standard Response Protocol Extended Edition ("I Love U Guys" Foundation, 2015), an all-hazards model safety drill, showed that students in grades 6–12 reported increases in preparedness following the training and lockdown drills and decreases in feelings of school safety (Schildkraut, Nickerson, & Ristoff, 2020). A follow-up study conducted by Schildkraut and Nickerson (2020) showed that students, faculty, staff, and administrators showed increased perceptions of preparedness after the training and drills, and observational documentation showed skill mastery on three of four steps in the lockdown practice, where remaining silent and out of sight could be improved. Focus groups of school counselors documented the importance of being aware of violence in schools, being prepared for a shooter situation, and questioning the school's procedures (Eckhoff & Goodman-Scott, 2021).

Huskey and Connell (2020) administered a survey to a convenience sample of college students asking about their experiences with active shooter drills in high school and found that experiencing an active shooter drill in high school was associated with significant increases in student fear and perceived risk of being attacked in school, and a decrease in self-reported school safety. Similarly, a qualitative study of MyVoice, a national poll of youth ages 14–24, showed that for those respondents who experienced drills, half (50.9%) reported feeling unsafe or scared and 7.9% reported feeling helpless or sad; when asked if drills made schools safer, close to half (42.9%) indicated that drills make schools safer because students are more prepared (Moore-Petinak et al., 2020). Finally, a study that used machine learning and interrupted time series analysis of 54 million social media posts before and after drills in 114 K–12 schools showed that anxiety, stress, and depression increased by 39%–42% following the drills (ElSherief et al., 2021).

Overall, the research suggests that lockdown drills increase knowledge, preparation, stress, and anxiety and decrease feelings of safety; they also represent an important type of emergency operations planning. Thus, future research should examine best practices for lockdown drills to ensure physical safety, minimize distress, and empower students and staff.

Perceptions of Surveillance Cameras

Schools across the country have adopted security cameras and closed-circuit televisions, with 20% of public schools using security cameras in 1999–2000 and 81% using them in 2015–2016 (Musu-Gillette et al., 2018). A moderate level of security camera usage outside school buildings was associated with increased perceptions of support (Lindstrom Johnson et al., 2018). However, an increased use of security cameras inside school buildings was associated with decreased perceptions of safety, equity, and support, perhaps due to students' concerns about their purpose (Lindstrom Johnson

et al., 2018). Interestingly, outside cameras were correlated with increased perceptions of safety for Black students more than for white students (Lindstrom Johnson et al., 2018). Coordinating surveillance camera technology with other safety and security measures, such as campus lighting and building access control, can enhance the functioning of each measure and overall school safety (Johns Hopkins University, 2016).

Perceptions of Law Enforcement Presence

Before the 1990s, few schools had law enforcement on campus. In 1996–1997, only 22% of public schools had law enforcement personnel on campus (Kaufman et al., 2000), but by 2015–2016, 57% of public schools had law enforcement personnel on campus at least once a week (Musu-Gillette et al., 2018). The U.S. Department of Justice’s Office of Community Oriented Policing Services has distributed \$300 million in grants to facilitate this increase in law enforcement personnel in schools (King & Bracy, 2019). While little research has evaluated the impact of law enforcement personnel on schools’ physical safety (Fisher & Hennessey, 2016), some research has examined the impact of law enforcement personnel on perceptions of safety and other outcomes (e.g., exclusionary discipline).

Although CSSI research has shed light on students’ perceptions of school resource officers (SROs), important questions remain on the role of SROs and their effect on school safety in general and on school climate, student behavior, and physical security in particular. Some of this research, which is drawn from local school-based samples, found that students described security measures — including the presence of an SRO or security personnel, metal detectors, and locked doors — as helping them feel safer in school (Cobbina et al., 2019). In addition, the presence of a security officer was associated with higher perceptions of safety among students across 98 middle and high schools in Maryland (Lindstrom Johnson et al., 2018).

In survey data from more than 120,000 students in grades 8, 9, and 11 in Minnesota, most students expressed a fairly neutral awareness and perception of the SRO in their school, but Black, multiracial, and American Indian students reported smaller benefits from an SRO’s presence than white and Asian students (Pentek & Eisenberg, 2018). Another study found that Hispanic/Latino students reported more positive perceptions of their SRO than non-Hispanic/Latino students (Meter et al., 2016). Using survey data from 361 rural schools in Nebraska, researchers found that students reported feeling safer when law enforcement was less engaged with their school (Scalora et al., 2018).

School administrators rated mental health professionals and SROs as more effective in promoting safety than crisis response plans and monitoring procedures (Eklund, Meyer, & Bosworth, 2017). The Office of Community Oriented Policing Services’ *School Resource Officer: Averted School Violence Special Report* identified many cases where a law enforcement officer averted a deadly school attack by subduing and arresting an armed suspect or through an investigation into a student’s concerning behavior (Allison, Canady, & Straub, 2020).

Improving Physical Security

Before adopting any new system for supporting physical security, schools should: (1) conduct a security assessment (or safety audit) to identify their physical safety strengths and needs, (2) prioritize their data-identified needs, and (3) select the best available tools and strategies for addressing those needs given their cultural context and budget (see Johns Hopkins University, 2016). A comprehensive approach to school safety requires that schools select physical security measures that align with their norms, values, and relationships because physical security can influence student behavior and school climate (National Institute of Justice, 2020).

Step 1: Assess Physical Security

To assess physical security, Johns Hopkins University (2016) identified several guides and surveys for schools; these assessments should inform the selection and implementation of any new or improved technology or strategy.

Security Assessment Surveys

- Florida Department of Education's [Florida Safe School Design Guidelines: Strategies To Enhance Security and Reduce Vandalism](#)
- National Institute of Standards and Technology's [Risk Management Framework](#)
- Texas School Safety Center's [School Safety and Security Audit Toolkit](#)
- Virginia Department of Criminal Justice Services' [Virginia School Safety Audit Program](#)

(Johns Hopkins University, 2016)

While decisions about the selection of security technologies and strategies are often driven by a school's budget and staffing, schools should also recognize that:

- A positive school climate is critical to learning; thus, a school's security technology or strategy should not escalate fears or create a prison-like atmosphere.
- The selection of any new school safety technology or strategy should be informed by data-identified needs.
- Safety technologies and strategies cannot overcome weaknesses in the architecture of the building or campus.
- Safety technology cannot be fully effective without training and consideration for the cultural context.
- Safety technology evolves rapidly, and so does the software that often accompanies it; consider the costs of and training required for maintenance and updates.
- Safety technology requires long-term support and technical assistance, which may not be available from an inexperienced vendor or distributor (Johns Hopkins University, 2016, 2–3).

Step 2: Identify Physical Security Needs

Schools should use their security assessment results to identify their physical safety strengths and gaps. This assessment should inform the selection of any new or improved physical safety measures, along with thoughtful consideration of the school's unique resources, stakeholder concerns, and cultural context (see Johns Hopkins University, 2016). In addition, the measures for addressing a school's physical safety should be pursued in coordination with and consideration of the other two components for a comprehensive framework for school safety: school climate and student behavior. To promote school safety action planning, school administrators can use safety team meetings to discuss and clarify roles and responsibilities, review and improve crisis response and emergency preparedness plans, reflect on cases, and improve responses (Eklund, Meyer, & Bosworth, 2017).

Step 3: Select, Implement, and Maintain Physical Security Technologies and Strategies

After reviewing the security assessment findings and identifying security needs, schools can select the best and most appropriate security technologies and strategies and implement them with fidelity. The selection process should be informed by the school's local context, and the implementation process should engage stakeholders through collaborative and coordinated planning, training, practice exercises, and maintenance (Johns Hopkins University, 2016). The Averted School Violence Database, which was supported by NIJ funding, provides case study examples for tabletop exercises to review security technologies and practice security strategies (see National Policing Institute, n.d.; Daniels, 2019).

Step 4: Monitor Impact

Schools should monitor the effect of security technologies and strategies on school climate, student behavior, and physical security outcomes to ensure a balanced and comprehensive approach to school safety (National Institute of Justice, 2020). Physical security technologies can sometimes fail due to the “human element,” including “staff capacity, lack of training, and lack of funding to faithfully implement the intended technology” (Schwartz et al., 2016, 74). As with other school safety strategies (e.g., bullying prevention programs, PBIS), “[School safety] technologies are often not implemented as intended, and, therefore, they may not be effective because of how they are actually used in the field as opposed to how they were intended to be used” (Schwartz et al., 2016, 74). By observing use, buy-in, and impact, schools can identify and address unintended consequences and remaining gaps and make adjustments (Johns Hopkins University, 2016; Schwartz et al., 2016).

Best Practices for Physical Security

A review of school security trends from the 1990s to 2019 revealed that many security measures in schools serve several functions, such as reducing the likelihood of harm from outsiders, insiders, and school attackers (e.g., locked doors, emergency operations, cameras) (King & Bracy, 2019). Generally speaking, school safety interventions should be tested to ensure they work and do not cause harm, but the lack of empirical research in this area leaves schools to rely on theoretically sound and commonly used physical security measures. Here, several of the most commonly used practices for physical security and safety in schools are highlighted, but even these practices should be pursued in coordination with other school safety strategies and in a balanced manner to support a comprehensive approach to school safety (Johns Hopkins University, 2016; Schwartz et al., 2016).

Emergency Operations Planning

Schools should partner with local agencies (e.g., law enforcement, emergency management services, fire department) to create and practice their emergency operations plan. The U.S. Department of Education’s (2013) *Guide for Developing High-Quality School Emergency Operations Plans* provides step-by-step procedures for building a plan. “High-quality” emergency operations plans are “adequate, feasible . . . and compliant with state and local requirements” and address the five areas specified by the Federal Emergency Management Agency (FEMA): prevention, protection, mitigation, response, and recovery (Brock, Kriger, & Miró, 2017, 43).

The emergency operations plan should also allow for two-way communication between school staff during and after a safety incident (e.g., lockdown, lockout, reunification), particularly if cell lines or Wi-Fi become inoperable (Schwartz et al., 2016). A memorandum of understanding (MOU) can delineate the roles and responsibilities of each agency (e.g., law enforcement, emergency medical services, school, victim services) during an emergency or crisis response (for an example, see FEMA, 2020). These MOUs can also stipulate the expectations for safety-related drills (e.g., annual), communications (e.g., radio, email notification, in-person), and coordination (e.g., monthly meetings). The U.S. Department of Education’s Readiness and Emergency Management for Schools Technical Assistance Center offers resources and training on emergency operations planning for schools (Brock, Kriger, & Miró, 2017), and the National Policing Institute’s Averted School Violence Database provides case study examples for tabletop exercises to help simulate a thwarted school attack (Daniels, 2019).

Lockdown Drills

Lockdown drills represent one aspect of emergency operations planning, but there is limited research and inconsistent evidence on lockdowns in K–12 schools. Only one CSSI study examined the impact of lockdowns, finding that lockdown drills increased students’ feelings of safety (Cobbina et al., 2019). Other studies on lockdowns have showed increases in correct behaviors during a lockdown (Dickson & Vargo, 2017), a significantly higher knowledge of correct behaviors among the treatment group, and no group differences in anxiety or perceptions of school safety between the treatment and placebo control groups (Zhe & Nickerson, 2007). Given these results and the fact that some lockdown drills include active shooter drills where individuals are taught to run, hide, or fight (FEMA, 2018), school teams who execute lockdown

drills should follow the best practices outlined in the National Association of School Psychologists and National Association of School Resource Officers' (2017) joint publication *Best Practice Considerations for Schools in Active Shooter and Other Armed Assailant Drills*.

Surveillance Systems

Technology for surveillance systems has not been rigorously tested in schools, but many are commonly used, including cameras and software (Johns Hopkins University, 2016; Schwartz et al., 2016). Security surveillance cameras support campus monitoring, incident reviews, and proactive prevention efforts (McCrary et al., 2019). The Campus Shield initiative represents an innovative data fusion center — which included surveillance cameras, a visitor management system, and data cube — to help proactively identify and address school safety threats and issues, but research on the initiative revealed implementation challenges. Consequently, school administrators rarely used the tool to guide their safety decisions (McCrary et al., 2019).

School-Based Law Enforcement

Research on the effect of SROs on student behavior, school climate, and safety remains inconsistent (Brown et al., 2020; McKenna & Petrosino, 2022). A recent meta-analysis of seven studies examining the relationship between SROs and rates of exclusionary discipline in high schools (e.g., suspension, expulsion) produced contradictory results, with one model finding no relationship and another finding a positive relationship; the authors cite the weak methodological rigor of studies on SROs as a major limitation of the analysis (Fisher & Hennessy, 2016). Using mixed-methods data from student surveys and group interviews with 25 schools, students' interactions and trust level with SROs did not influence disciplinary actions (Curran et al., 2021). Students perceived SROs as increasing safety, but students' interactions with SROs elevated their concerns about danger (Curran et al., 2021).

School-based law enforcement refers to “sworn police officers who are assigned to patrol a school or set of schools and have arrest powers” (King & Bracy, 2019, 279). SROs and school district police are the most common types of school-based law enforcement officers. School districts and law enforcement partners should clearly define the roles and responsibilities of school-based officers in an MOU, which can provide clarity, consistency, and credibility in officers' responses to student misconduct (McKenna & White, 2018; Rosiak, 2019). “The explicit purpose and role of the SRO must be clearly defined and communicated to all stakeholders to ensure a safe learning environment for students” (Eklund, Meyer, & Bosworth, 2017, 149).

Local law enforcement's level of engagement in school safety planning is driven, in part, by local resources (Scalora et al., 2018). More populated communities with more law enforcement resources are more likely to have higher levels of law enforcement engagement within schools and a more objective assessment of their physical safety (Scalora et al., 2018).

SROs' responses to vignettes revealed a comprehensive approach to student misconduct that included counseling, school-based responses (e.g., referral), and legal tactics (e.g., arrest, ticketing) (McKenna & White, 2018). “[S]chool [law enforcement] officers demonstrated a preference for counseling and other less punitive school-based punishments” (McKenna & White, 2018, 466). The perception of school police as caring can mitigate the negative relationship between perceived discrimination and school engagement among students (Bottiani et al., 2020). To support a caring response, schools could provide Youth Mental Health First Aid training to school police officers and teachers; in recognition of the discrimination students experience (even outside the school environment), schools could also train teachers on culturally responsive practices in the classroom, which can reduce bias in student management (Bottiani et al., 2020).

Schools need to delineate the roles and responsibilities of law enforcement professionals in schools in an MOU between the district and the law enforcement agency. The MOU can help specify the expectations, roles, and responsibilities for an SRO program (Rosiak, 2019). In some schools, SROs help address student behavior through involvement in threat assessment, informal mentoring, and educational programs (McKenna & White, 2018). The National Association of School Resource Officers provides training for SROs, and future research should examine the effect of this training on SROs, students (e.g., perceptions of climate, safety, behavior), and schools (e.g., suspension, expulsion).

CONCLUSION

This paper summarizes and synthesizes what we have learned about the components of a comprehensive framework for school safety from CSSI projects and related research. Schools continue to encounter enormous challenges in identifying and implementing the best practices for a comprehensive approach to school safety. This review provides school and district officials with information on and guidance for how to balance the components of school safety, and it provides federal, state, and local policy leaders with evidence on the gaps in knowledge, practice, and implementation of evidence-based practices for school safety.

NIJ's three main components of a comprehensive approach to school safety are: (1) **school climate** (i.e., the norms, values, relationships, teaching and learning, and organizational structure that influence people's feelings about the school), (2) **student behavior** (i.e., the proactive, consistent, and developmentally appropriate strategies for monitoring and addressing student conduct), and (3) **physical security** (i.e., access control, security, preparedness, and response). The following highlights key findings on each of these components.

School Climate

- A positive school climate benefits numerous student- and school-level outcomes.
- Climate can and should be assessed using a validated climate survey administered annually or biennially to students (at a minimum), staff, and parents.
- Sexual harassment measures could be a valuable addition to climate surveys.
- Climate survey results should inform school safety planning (e.g., programs, strategies, technologies).
- Several programs are shown to benefit school climate (and related safety issues), but the benefits depend upon the setting, resources, and implementation.
- Future research should clarify the definition and dimensions of school climate, test the theory of change process by which climate impacts school safety, and identify models that are effective at improving school climate.

Student Behavior

- Get-tough or zero tolerance approaches to student misconduct are ineffective. They damage school climate, impede academic achievement, and create racial/ethnic disparities.
- Schools should rely on a continuum of responses to student behavior that address the underlying causes of misconduct, aggression, and violence (as opposed to the symptoms).
- A reliable national data source is needed to document or track school employees' sexual misconduct.
- Positive behavior and bullying prevention programs do not have to be costly or complicated, but staff buy-in and consistent use are key to effective implementation.

- Threat assessment represents a tool for evaluating risk for violence and, when used effectively, may improve perceptions of school climate, reduce suspensions, and prevent violence.
- Future research should focus on understanding how peer and social dynamics impact school violence to identify factors to target for intervention.

Physical Security

- Limited research exists on the effectiveness of physical security technologies in general and on their impact on school climate, student behavior, and physical safety in particular.
- Widely accepted and reasonably sound physical security technologies and strategies in schools include emergency operations planning, surveillance systems (e.g., cameras, software), and law enforcement collaboration.
- Security assessment results, along with a school's resources and capacity, should guide the selection and implementation of physical security technologies and strategies.

Implementation Challenges

CSSI studies also described several challenges related to implementing a comprehensive approach to school safety. First, the implementation of safety-related programs and practices has proved challenging for schools due to competing demands, uneven buy-in, and students' needs. These implementation challenges are likely to have been exacerbated by recent historic shifts in the United States, including the remote learning required during the COVID-19 pandemic, public protests over systemic racism, and calls for law enforcement reform.

Second, for a comprehensive approach to be successful, the implementers must want to implement the programs, be ready to do so, have the tools to support the work, and implement the programs and strategies with fidelity and self-reflection. Several CSSI studies tested implementation fidelity tools to support program delivery. For example, a school's readiness to adopt a new school safety program, practice, or policy can be measured and improved. Assessing the factors that make schools more or less ready to implement the components of a comprehensive approach to school safety and tailoring supports for those schools based on their individualized needs may benefit the adoption, implementation quality, and sustainability of school safety programs and practices.

Third, the school's multidisciplinary school safety team should lead the school's safety planning efforts by using data to identify strengths and challenges, setting priorities for action, selecting evidence-based programs to address needs, and monitoring impact through a continuous improvement process. Finally, school administrators and policymakers should ensure school staff receive training on a comprehensive approach to school safety and have the resources needed to effectively implement evidence-based programs and practices for safety.

The findings from CSSI and related research indicate that our nation possesses much of the knowledge needed to promote school safety and prevent school violence, but we have yet to put everything we know into action. The need for clear and actionable guidance on the key components of a comprehensive approach to school safety and how schools can effectively implement them remains high. The impact of violence on schools and communities is devastating. We cannot afford to let the complexity and cost of these solutions prohibit us from implementing what we know works to improve school safety and prevent violence.

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APPENDICES

Appendix A: Process Used for the Literature Review

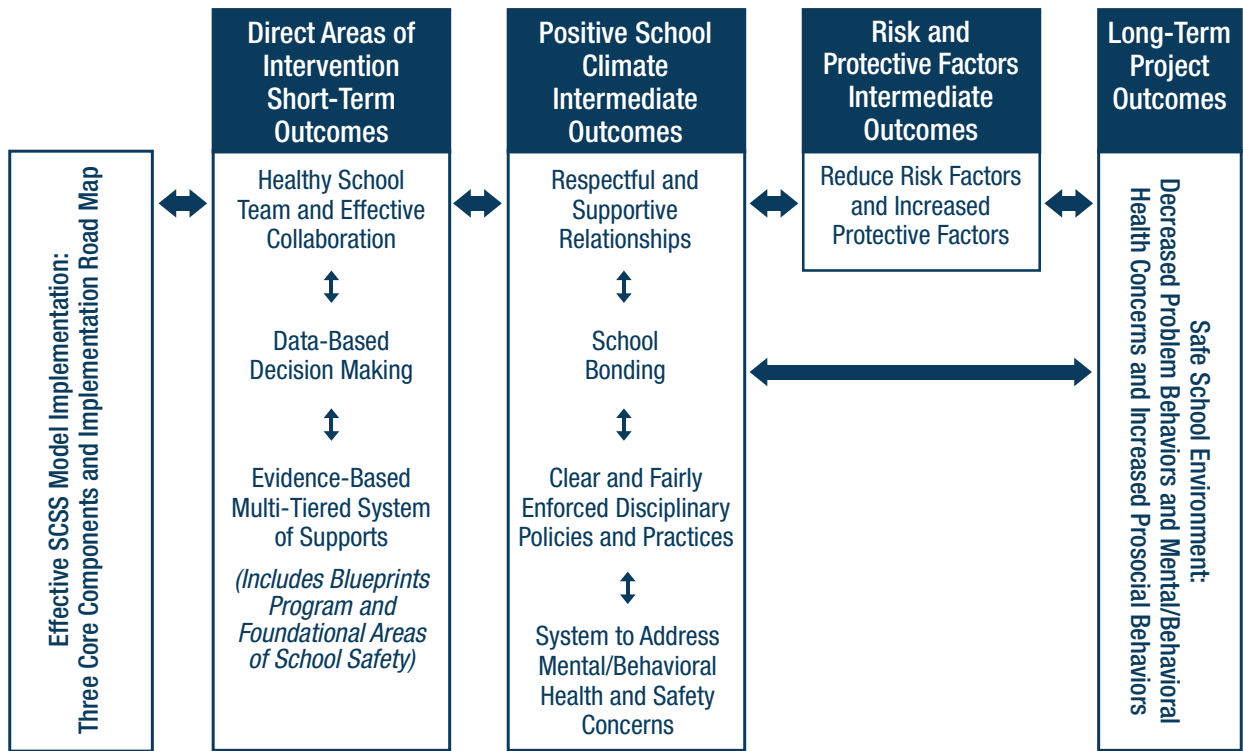
To determine the best process for identifying peer-reviewed articles on CSSI projects, a series of searches were conducted using the University of Colorado Boulder's (CU Boulder) library database and GoogleScholar. These preliminary searches revealed that CU Boulder's library system included advanced search options that allowed for more detailed search criteria than GoogleScholar, and CU Boulder's more advanced search options produced search results that more consistently identified CSSI studies on school safety. Thus, the remainder of the searches were conducted using CU Boulder's extensive library database (www.colorado.edu/libraries).

From 2014 to 2017, 97 CSSI projects were funded. Articles searches were conducted for each of the principal investigators' names. Because several principal investigators published articles on other non-school safety-related research topics, the advanced search criteria included:

1. Select "Advanced Search."
2. Enter CSSI principal investigator's first and last name into the main search window.
3. Select "And."
4. Search "All Fields" for term "National Institute of Justice."
5. Years — 2019 to 2021.
6. Limit to — Peer Reviewed Publications.

These searches identified 64 additional articles. The article titles and abstracts were reviewed by two authors to determine their relevance for this report, which reduced the number of articles to 41. Those articles are included as references throughout this report. In addition to the NIJ principal investigator articles, this report also references seminal publications on school safety and violence prevention.

Appendix B: University of Colorado’s Safe Communities Safe Schools (SCSS) Logic Model



Endnotes

¹ A systematic review is a “comprehensive high-level summary of primary research on a specific research question that attempts to identify, select, synthesize, and appraise all high-quality evidence relevant to that question” (Harris et al., 2014, 2762).

² In 2019, the Youth Risk Behavior Surveillance Survey found that 3% of high school students carried a weapon to school, 7% were threatened or injured with a weapon at school, 8% were in a physical fight at school, and 20% were bullied at school (CDC, 2020).

³ From 2009 to 2018, the rate of multiple-victim homicides in schools increased significantly from less than 0.005 per 100,000 students to 0.010 per 100,000 students. The rate of single-victim homicides in schools did not change significantly from 1994 to 2016. Firearms were involved in most of the single-victim (63%) and multiple-victim (95%) homicides (Holland et al., 2019).

⁴ An accumulating body of evidence points to the importance of schools using data-based decision-making systems that incorporate student- and school-level information (Ward, Farmer, & SISEP Center, 2020). Research indicates that increasing school staff understanding, collection, and use of data (and data systems) is a critical mechanism for promoting positive school outcomes (Ryan Jackson et al., 2018). The challenge lies in creating data systems that can be implemented within the constraints of busy school days and with the limited number of school personnel who have the time and skills required (Fagan & Mihalic, 2003; Osher, 2012). Schools also need staff who know how to gather information on individual students exhibiting warning signs for potentially violent behavior, or who indicate the need for mental and behavioral support (Cornell et al., 2009; National Research Council and Institute of Medicine, 2009; Stephan et al., 2015). Use of data allows schools to better understand their specific strengths and challenges, set priorities for action, identify evidence-based programs and strategies matched to their needs, assess if school safety efforts are having the intended impact, and participate in an iterative cycle of continuous process improvement.

⁵ Depression is an example of a concept that cannot be measured directly. We cannot assess whether someone is feeling depressed by simply asking “Are you depressed?” Instead, we ask questions that assess symptoms of depression, such as loss of appetite, feeling blue, or inability to sleep.

⁶ Students reported experiencing unwelcome sexual comments, jokes, or gestures (71%); sexual rumors (46%); physical sexual contact (42%); and being repeatedly bothered to go out with someone (34%) (Crowley et al., 2019).

⁷ Questions to include in climate surveys include:

- Sexual Identity — Which of the following best describes your sexual orientation?
 - Mark one response:
 - Straight; that is, not gay
 - Gay or lesbian
 - Bisexual
 - I am not sure yet
 - Something else
- Sexual Attraction — Middle Schoolers: Have you ever had a crush on a boy or a girl?
 - Mark one response:
 - A boy
 - A girl
 - Both
 - Neither
- Sexual Attraction — High Schoolers: Who are you sexually attracted to?
 - Mark one response:
 - Boys
 - Girls
 - Both
 - Neither
- Gender Identity — Gender at Birth: Which gender were you at birth, even if you are not that gender today? That is, what is the gender on your birth certificate?
 - Mark one response:
 - Male
 - Female
- Gender Identity — Current Gender Identity: What is your current gender identity, even if it is different than the gender you were born as?
 - Mark one response:
 - Male
 - Female
 - I do not identify as either male or female
 - I’m not sure yet.

⁸ The CDC's Adverse Childhood Experiences (ACEs) questions include 10 events covering three categories (abuse, neglect, and household dysfunction). Knowledge of ACEs, as well as the protective and resilience factors that can counteract them, can help school staff develop trauma-sensitive campuses and classrooms; a trauma-aware school environment aligns with MTSS's tiered approach (Chafouleas et al., 2016; Osher et al., 2016). Communities with collaborative systems for supporting children can use available resources to meet the needs of children, including counseling, mentoring, social activities (e.g., before- and after-school programs), and internships.

⁹ Two NIJ-funded research projects are examining potential unintended consequences of threat assessment: National Institute of Justice funding award description, "Statewide Implementation of School Threat Assessment in Florida," at the Rector & Visitors of the University of Virginia, award number 2020-RF-CX-0002, <https://nij.ojp.gov/funding/awards/2020-rf-cx-0002>; and National Institute of Justice funding award description, "Impact and Outcomes of School Threat Assessment," award number 15PNIJ-22-GG-03143-MUMU, <https://nij.ojp.gov/funding/awards/15pnij-22-gg-03143-mumu>.

