The Science Behind the Early Identification System

Technical evidence for universal social, emotional, and behavioral screening and support in schools

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Core message: The EIS is not only a screener; it is a school-based public health system for turning relevant risk data into feasible, tiered action.

About this report

This report synthesizes the science behind the Early Identification System (EIS) and its shorter companion tool, the Psychosocial Universal Lens for Screening and Early Support (PULSE). Its purpose is to make the evidence chain visible by connecting developmental theory, construct design, psychometrics, predictive validity, usability, social consequences, implementation support, and population health impact.

The organizing question is simple: What evidence supports using EIS data to identify youth risk, guide school action, and improve outcomes? Across the studies reviewed here, the answer is not limited to whether the EIS works as a measure. It also includes evidence that the system is usable, equitable, implemented with fidelity, and sustained long enough to produce population impact.

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Central argument: The EIS reframes universal screening as more than risk identification. It shows how schools can use broad psychosocial data and implementation systems to guide timely tiered support, monitor quality, and link action to student outcomes.

Executive summary

Universal social, emotional, and behavioral screening has long been recommended as a foundation for prevention-oriented school mental health. Yet most schools do not screen all students for mental health risk in a consistent and useful way. The reasons are familiar: cost, time, uncertainty about what to do with the results, concern about overidentifying students, and lack of infrastructure for connecting screening data to supports.

The Early Identification System (EIS) was developed to address these barriers. It emerged from a multiyear partnership among researchers, school psychologists, counselors, social workers, administrators, teachers, students, methodologists, and software designers. From the beginning, the EIS was not treated as a stand-alone instrument. It was designed as a public health system for schools: collect data from teachers and students, identify actionable risk patterns, report data at multiple levels, select supports that fit the risk profile, monitor progress, and improve implementation over time.

The technical evidence is substantial. Initial EIS-Student Report (SR) work with students in Grades 3-8 supported a correlated factor structure, acceptable-to-excellent reliability, and convergent validity (Huang et al., 2019). Subsequent elementary, middle, and high school studies replicated the student-report factor structure in large community samples. These studies supported reliability, measurement invariance across key groups, concurrent validity with BASC-3 scales, classification accuracy, and predictive validity for later school records such as attendance, discipline, bully victimization, and academic achievement. Recent EIS-Teacher Report (TR) work extended this evidence to teacher ratings across K-12 with more than 17,000 students (Reinke et al., 2025).

The impact evidence suggests that EIS contributes to school mental health not simply by identifying risk, but by helping schools convert screening data into sustained, organized action. In countywide implementation, schools used EIS data to guide supports across universal, selective, and indicated tiers and generally implemented the model with high fidelity. Later evidence of continued teacher-report screening indicates that EIS use can be sustained over time, while longitudinal findings show that fidelity to the broader model is associated with more favorable student social, emotional, and behavioral trajectories. In this sense, EIS impact unfolds through a public health sequence: broad reach, routine use, high-fidelity response, and measurable student change (Herman et al., 2023; Reinke, 2023; Reinke et al., 2021; Reinke et al., 2026).

Technical conclusion: The EIS has evidence for construct validity, reliability, invariance, concurrent validity, predictive validity, usability, treatment utility, sustained use, and longitudinal associations between fidelity and student outcomes.

1. Why schools needed a different kind of screener

The need for school-based early identification begins with a practical mismatch. Youth mental health concerns are common, often emerge before adulthood, and frequently go unidentified. Schools are one of the only settings that reach nearly all children and adolescents on a recurring basis. Most also have created systems for tiered support. Yet universal screening for social, emotional, and behavioral risk has been far less common than screening for academic, developmental, vision, or hearing concerns.

The traditional answer to use barriers has been to make better measures. The EIS work, however, suggests that measurement quality is necessary but not sufficient. A screener can have strong psychometric properties and still fail to improve population outcomes if it is too costly, too slow, too confusing, too disconnected from intervention, or too likely to identify more students than schools can reasonably support. The problem is not only a measurement problem. It is an implementation and systems-design problem.

This distinction shaped the EIS from the outset. The founding coalition of school and community partners did not simply need a test of youth symptoms (Herman et al., 2021b). It needed a no-cost, efficient, locally actionable system that could help schools decide what to do at multiple levels: county, district, school, grade, classroom, and student. This public health logic is central to the EIS science.

The prevention-to-action gap: Screening identifies risk, but population impact depends on whether schools can translate those data into feasible, high-quality, multi-tiered, and sustained supports.

From access to population health

Universal screening is sometimes framed as a gateway to services: find students with needs and refer them. The EIS literature broadens that view. Equally important, screening data allows schools to see patterns of risk that are shared by many students and therefore require universal prevention, staff training, or changes to everyday school routines. When a large share of students show attention and organization difficulties, the appropriate response may not be to generate a referral list for individualized services. Instead, it may signal the need for schoolwide organizational skills training and professional development for teachers. When peer relationship problems are common, a school may need universal relational support curriculum rather than individual counseling referrals.

This is why the EIS is best understood as both a screening measure and a surveillance-and-action system. Its purpose is both to identify individual students who may benefit from selective or indicated support, and also to reveal the risk patterns schools can address through universal practices and staff capacity building.

2. Developmental theory and the selection of risk indicators

The EIS is grounded in developmental cascades theory (Masten et al., 2005; Patterson et al., 1989). This framework holds that early difficulties in one domain can compromise functioning in another domain, creating chains of risk across development. For example, externalizing behavior can disrupt learning, damage peer relationships, and increase exclusionary discipline. Attention and academic difficulties can shape self-perceptions and reduce engagement. Internalizing symptoms may be less visible to adults but can undermine attendance, peer connection, and help-seeking. These pathways matter because they identify points where schools can intervene before problems intensify.

The EIS item pool was therefore built around malleable risk indicators that are theoretically linked to later social, emotional, behavioral, and academic outcomes and that schools can plausibly address. The goal was not to diagnose disorders. It was to identify patterns of risk that can guide prevention and early intervention within school routines.

Figure 1. EIS logic model: From developmental theory toward data-based action

The EIS evidence chain: valid measurement is designed to support feasible action.

Malleable risk rather than diagnostic labels

This decision is scientifically and practically important. Diagnostic categories can be useful in clinical care, but schools need constructs that map onto supports. The EIS domains - internalizing, externalizing, peer relationship problems, emotion dysregulation, attention and academic issues, relational aggression or being mean to others, and school disengagement for student report - are closer to the daily conditions educators observe and influence. They also reflect the developmental pathways through which mental health risk and educational difficulties accumulate.

3. What the EIS measures and how the system works

The EIS includes teacher-rated and student-rated forms. The EIS-TR is used in kindergarten through 12th grade and asks teachers to indicate whether each risk indicator has been observed for each student. This checklist format was intentionally selected to reduce teacher time burden. The EIS-SR is used in Grades 3-12 and asks students to report their own experiences, which is especially important for risk indicators that adults may miss, such as internalizing symptoms, bullying, or school disconnection.

Table 1. Core EIS components embedded in a school support workflow.

Component	Level	Science function	Implementation function
Teacher report (EIS-TR)	K-12	Six core domains: externalizing behavior, internalizing behavior, peer relationship problems, emotion dysregulation, attention and academic issues, and being mean to others or relational aggression.	Efficient checklist completed online for classes or caseloads.
Student report (EIS-SR)	Grades 3-12	Same core risk logic, with a seventh school disengagement domain.	Captures student perceptions that may not be visible to adults.
Local norms and risk flags	Building level	Scores are interpreted relative to the local school context.	Helps prioritize the students with highest need without overwhelming available resources.
Reports and dashboards	Student to system levels	Teacher-student comparison reports, school and grade summaries, individual reports, and risk-profile displays.	Makes data usable for teams and MTSS decision making.
Intervention and implementation supports	Universal, selective, indicated	Risk domains are linked to evidence-based practices, fidelity tools, progress monitoring, and implementation guidance.	Turns screening data into a structured action pathway.

The reporting system is central to the design. Data are not merely returned as student risk scores. They are organized to help teams ask actionable questions: Which risk domains are most prevalent? Are patterns concentrated in particular grades? Which students show elevated risk across informants? Which universal supports, selective groups, or indicated services should be considered? Are risks changing after supports are delivered?

4. Construct validity, reliability, and measurement invariance

The EIS technical evidence begins with construct validity: do items organize into the theorized domains, and do those domains behave as expected? Across the EIS-SR and EIS-TR studies, factor analytic results support the hypothesized multidimensional structure. The most important pattern is replication across developmental levels and reporters.

Initial EIS-SR work with 1,590 students in Grades 3-8 supported a six correlated factor model with reliability ranging from .73 to .90 (Huang et al., 2019). Later EIS-SR studies in elementary, middle, and high school samples supported seven-factor student-report models, reflecting the addition and refinement of the school disengagement domain. An elementary study found adequate model fit in both training and holdout samples and supported invariance across gender, grade level, and Black and White students. A middle school study supported the seven correlated factor model with reliability ranging from .68 to .90 and supported invariance across gender and grade. A high school study replicated the seven-factor structure and found that the EIS-SR measured the factors similarly across gender and grade level (Herman et al., 2021; Reinke et al., 2022; Thompson et al., 2021).

The EIS-TR evidence extends this evidence to teacher report across K-12 (Reinke et al., 2026). In a sample of 17,552 students, schools screened 97.8% of students uploaded into the platform.

Confirmatory factor analysis supported a six-factor model with strong fit and item loadings from .69 to .96. The teacher-report model was invariant across school level, gender, race, and free or reduced-price lunch status. Teacher ratings of student (N = 10,221) internalizing problems on the EIS-TR had higher correlations with student self-reported internalizing problems on the BASC-3 compared to teacher ratings on the BESS Internalizing subscale (Herman et al., 2018). The EIS-TR Externalizing Behavior subscale scores had concurrent validity with teacher-reported BASC-3 aggression (r =0.72, p <.01), conduct problems (r =0.60, p <.01) and externalizing subscales (r =0.72, p <.01). Similarly, the Attention and Academic Issues subscale had significant associations with the teacher-reported BASC-3 attention problems (r =0.62, p <.01), school problems (r =0.67, p <.01), and study skills subscales (r =0.58, p <.01; Reinke, Stormont, & Herman, 2025).

Table 2. Evidence map for the EIS and PULSE measurement science base.

Study	Sample	Primary contribution	Key findings
Huang et al., 2019	1,590 students; Grades 3-8	Initial EIS-SR development	Six correlated factors; reliability .73-.90; convergent validity.
Reinke et al., 2022	5,005 students; Grades 3-5	Elementary EIS-SR validation	Seven factors; invariance by grade, gender, and Black/White students; AUC .75-.82; predicts spring records.
Herman et al., 2021	4,967 students; Grades 6-8	Middle school EIS-SR validation	Seven factors; reliability .68-.90; invariance by gender and grade; AUC .78-.90; predicts discipline, suspensions, achievement.
Thompson et al., 2021	5,262 students; Grades 9-12	High school EIS-SR validation	Seven factors; invariance by gender and grade; predicts discipline, suspensions, bullying, and attendance.
Reinke et al., 2026	17,552 students; K-12	EIS-TR validation	Six factors; loadings .69-.96; invariance by school level, gender, race, and FRL; predicts attendance, discipline, bullying, and achievement.
Herman et al., 2018	10,221 students; K-12	EIS-SR predictive validity	EIS-TR internalizing correlations outperformed BESS internalizing in predicting BASC-3 student reported internalizing (.25 vs .10).
Herman et al., 2023	54 schools; 23,104 students	Usability and social consequences	High completion; data used for PD and tiered supports; 79% high-fidelity implementation.
Reinke et al., 2021	16,782 students; 54 schools; 9 time points	Fidelity and longitudinal trajectories	Overall symptoms declined; increasing problems were more likely in lower-fidelity schools. EIS is sensitive to change.
Reinke et al., 2025	1,404 elementary students	EIS-TR validation	Relevant subscales predicted BASC-3 aggression, conduct and attention problems, school problems, and study skills subscales (r =0.58-.0.72).
Herman et al., 2026	23,301 students for reduced forms	Reduced-item optimization	IRT item reduction; teacher CFA CFI .99/TLI .98/RMSEA .04/SRMR .05; student CFA CFI .97/TLI .96/RMSEA .04/SRMR .05.

Measurement takeaway: EIS domains are distinguishable but interrelated risk constructs across development, reporters, and school samples and each predicts unique outcomes.

5. Concurrent validity and classification accuracy

Concurrent validity studies examined whether EIS subscales relate to established measures in expected ways. EIS-SR internalizing, attention and academic issues, emotion dysregulation, and school disengagement show moderate correlations with comparable BASC-3 scales. In elementary school, comparable EIS-SR and BASC-3 subscales correlated in the expected direction, with classification accuracy in the acceptable-to-excellent range (AUC = .75-.82). In middle school, EIS-SR subscales showed comparable BASC-3 correlations, and specific AUC values ranged from .78 to .90. The evidence reports EIS-SR AUC statistics in elementary (.75-.82) and secondary samples (.78-.90) that are comparable to or higher than values reported for selected SAEBRS subscales (Herman et al., 2021; Huang et al. 2019; Reinke et al., 2022; Thompson et al., 2021).

Teacher-report evidence also supports convergent relations. The EIS evidence shows that teacher ratings of internalizing problems on the EIS-TR in a large sample were more strongly correlated with student self-reported BASC-3 internalizing problems than teacher ratings on the BESS internalizing subscale (Herman et al., 2018). EIS-TR externalizing and attention/academic issues subscales also showed strong correlations with comparable BASC-3 scales (Reinke et al., 2026).

Why classification accuracy is not the whole story

Classification statistics are important because they indicate whether a screener can distinguish students likely to show clinically elevated or functionally meaningful risk. But EIS science does not treat classification as the endpoint. Schools need risk information that is interpretable, specific enough to guide supports, and realistic to use. A measure that identifies risk without helping schools decide what to do can unintentionally increase burden. EIS classification evidence is therefore best considered alongside its usability, local norming, and intervention-linkage foundations.

6. Predictive validity: risk before outcomes

Predictive validity asks a different question: do EIS scores forecast later school outcomes that matter to students and educators? Across studies, the answer is yes. EIS-SR and EIS-TR fall scores predict spring outcomes such as office discipline referrals, in-school and out-of-school suspensions, attendance, bully victimization, and academic achievement (Herman et al., 2021; Huang et al. 2019; Reinke et al., 2022; Thompson et al., 2021).

The pattern of prediction is theoretically coherent. Externalizing behavior predicts later discipline. Emotion dysregulation often predicts discipline and peer difficulties. Attention and academic issues predict lower achievement and, in teacher report, a wide range of spring outcomes. School disengagement predicts poorer attendance. Internalizing problems predict bully victimization and, in some models, attendance risk. Thus, the EIS domain scores capture early indicators that are useful for prevention and decision making.

Table 3. Predictive validity signals and prevention implications.

EIS domain	Common predictive signal	Prevention implication
Externalizing behavior	ODRs, ISS/OSS, lower achievement, bullying experiences in some samples	Intervene before disruptive behavior produces exclusion, peer rejection, and missed instruction.
Emotion dysregulation	ODRs, suspensions, bullying risk, co-occurring externalizing concerns	Teach regulation skills and emotion management before conflict escalates.
Attention and academic issues	Lower achievement, attendance, discipline, bullying in teacher report	Support organization, persistence, attention, and academic routines as mental health prevention.
Internalizing behavior	Bully victimization, attendance risk, elevated emotional symptoms	Use student voice and trusted-adult connections to find concerns that may be hidden from adults.
Peer relationship problems	Bully victimization and social risk indicators	Build peer supports, social skills, and adult monitoring of exclusion and isolation.
School disengagement	Attendance and school-related outcomes	Address belonging, interest, relevance, and school connection early.

The most recent EIS-TR study illustrates the added value of teacher-report data (Reinke et al., 2025). In that study, model performance for disciplinary outcomes was strong, with AUC values of .84 for office discipline referrals, .84 for in-school suspensions, and .83 for out-of-school suspensions. Bullying models showed acceptable discrimination using teacher and student reports of victimization.

7. Usability and social consequences

A distinctive feature of the EIS evidence base is that it centers the importance of usability and social consequences as part of validity. This follows modern measurement theory: the appropriateness of a measure depends not only on score structure and correlations, but also on the interpretations and actions that follow from score use. The EIS social-consequence study asked whether schools would complete the system, review the data, use it in problem-solving teams, choose professional development based on the data, provide supports, and implement the model with comparable fidelity across schools serving different student populations (Herman et al., 2023).

Table 4. EIS design features that support usability and impact.

Design principle	EIS example
Minimize time and cost burdens	No-cost access in core partnerships, web-based administration, efficient teacher checklist, rapid scoring.
Prevent system overload	Local norms prioritize students with highest relative need in each building and reduce unmanageable overidentification.
Reduce cognitive load	Color-coded reports, familiar MTSS logic, and straightforward displays make data easier to interpret.
Integrate with existing workflows	Reports are designed for school problem-solving teams, professional development planning, and tiered intervention selection.
Build pragmatic adaptations	Single-item indicators, intervention menus, progress monitoring tools, and PULSE refinements respond to user needs.

The results were encouraging. In 54 K-12 schools serving 23,104 students, every school administered the EIS three times during the year (Herman et al., 2023). Across buildings, mean completion was 98% for teacher report and 93% for student report. Schools used the data to guide professional

development for 943 educators. They provided universal preventive interventions to 6,459 students, group-based supports to 541 students, and individualized interventions to 397 students. Among students identified as needing support, 79% received services documented by schools.

Social-consequence evidence also addressed equity and implementation quality. Overall, 79% of schools implemented the model with high fidelity. Fidelity was not related to the proportion of students of color or students receiving free or reduced-price lunch. That is, the EIS was implemented with comparable fidelity across different school demographic profiles. This matters because school mental health systems can unintentionally reproduce inequities if they are easier to implement in better-resourced or less diverse settings.

Social-consequence takeaway: The EIS evidence base goes beyond whether scores are accurate. It shows that schools can administer the screener, interpret the data, use results to guide services, and do so with comparable fidelity across school contexts. These use and fidelity findings are also proximal impact indicators because they suggest that the screener has entered routine practice.

8. EIS impact and outcomes: use, fidelity, and student change

Impact evidence for a universal screening system should not be limited to distal symptom reduction. For a school-based public health tool, the first impact question is whether the system reaches most students, enters routine school decision making, and leads to supports that otherwise may not occur. The EIS evidence base supports a three-part impact chain: broad reach and use, high-fidelity action, and more adaptive student trajectories.

Proximal impact: sustained reach, use, and service linkage

Herman et al. (2023) provide the clearest evidence of proximal impact. In 54 K-12 schools serving 23,104 students, every school administered the EIS three times during the school year. Mean completion was 98% for teacher report and 93% for student report. All schools reported using EIS data to implement universal, selected, or indicated interventions; 76% shared data with staff; and 60% used student-level data in problem-solving team meetings. Schools also used EIS data to guide professional development for 943 educators and to provide supports to students across tiers, including universal supports for 6,459 students, group-based supports for 541 students, and individualized supports for 397 students. Among students identified with elevated risk in a subsample of schools, 79% received documented services.

Sustained use is a second form of proximal impact. In the EIS-TR validation study, Reinke et al. (2026) found that 941 teachers completed the teacher report on 17,552 of 17,941 students uploaded into the EIS platform, a 97.8% completion rate. The authors noted that this was the **eighth year** of district EIS-TR use and that completion rates remained comparable to the high rates observed four years earlier. This finding matters because many schools that report screening do not screen their full student population; a public health screener has limited impact if large groups of students are never included.

Table 5. EIS impact evidence as a chain from proximal implementation indicators to distal student outcomes.

Impact indicator	Evidence in the EIS literature	Interpretation
Reach and completion	98% EIS-TR and 93% EIS-SR completion in 54 schools; 97.8% EIS-TR completion in 31 schools after eight years.	A universal screener can only support population health if most students are included.
Use for decisions	100% of schools used EIS data for tiered supports; 943 educators received data-aligned PD; 76% of schools shared results with staff.	Screening data moved into school routines rather than remaining a measurement exercise.
Service linkage	6,459 students received universal supports, 541 group-based supports, and 397 individualized supports; 79% of elevated-risk students in a subsample received services.	The EIS showed treatment utility: identified risk was connected to support.
Fidelity	79% of schools implemented the EIS model with high fidelity; fidelity was not related to school racial or economic composition.	Fidelity functions as a proximal outcome and a mechanism linking data to practice.
Student outcomes	Across 16,782 students and nine time points, symptoms declined; students with increasing problems were more likely to attend lower-fidelity schools.	The strongest peer-reviewed outcome evidence links high-quality implementation to more adaptive student trajectories.

Fidelity as the bridge from data to outcomes

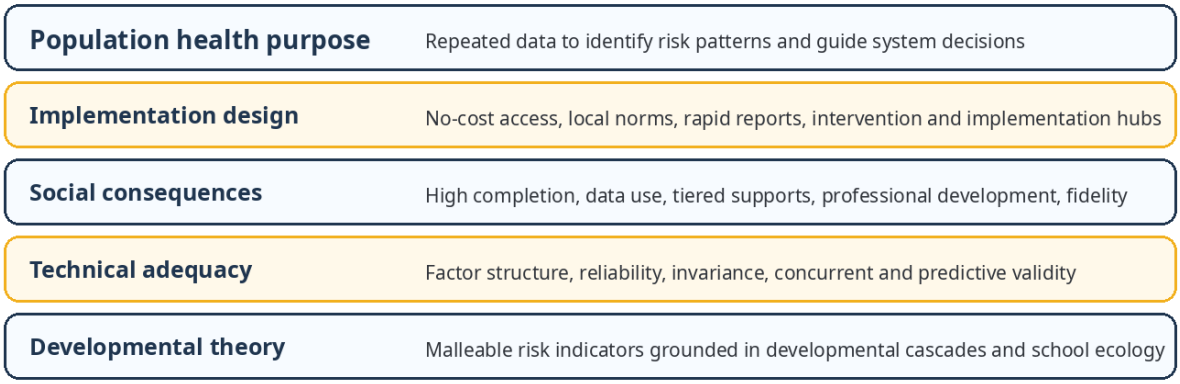
Fidelity is best treated as both a proximal impact and a mechanism. In the EIS model, fidelity means schools are not merely collecting data; they are reviewing universal screening data, selecting and implementing supports across tiers, and monitoring progress. Herman et al. (2023) found that 79% of schools implemented the model with high fidelity and that fidelity was not associated with the racial or economic composition of the student body, suggesting that implementation quality was not limited to the most advantaged school contexts.

The strongest distal-outcome evidence comes from Reinke et al. (2021), which followed 16,782 students in 54 schools across nine screening occasions. Student-reported social, emotional, and behavioral problems declined significantly over three years. Growth mixture models identified low-stable, decreasing, high-stable, and increasing trajectories; students with increasing problems, and to a lesser degree high-stable problems, were more likely to attend schools with lower implementation fidelity. Findings indicate that sustained, high-fidelity use of EIS routines is associated with more adaptive student trajectories.

Emerging population-level signals

Recent evidence also shows growing evidence of population benefit from EIS use. In a summary report, we found that students in schools where the EIS has been implemented for several years were reporting much lower mental health risk over time compared to youth across Missouri and the nation (Reinke, 2023). First, national trends indicate that youth mental health concerns have been rising exponentially for the past decade but not so for youth EIS schools. The national worsening trends accelerated during the pandemic. As one example, in their biannual summary of youth well-being the Centers for Disease Control (CDC) found that 57% of high school girls across the country reported persistent sadness or hopelessness. This was up from 36% in 2011. In sharp contrast, both boys and girls in EIS schools reported sadness or hopelessness from 2017-2021; only 7% of girls reported these feelings in 2021 down from 12% in 2017 (Reinke, 2023).

Figure 2. The EIS science stack: System designed to move from theory to population impact.



The science is cumulative: each layer depends on the one below it and extends it toward population impact.

Second, direct comparisons between youth in EIS rural schools (*n*=3,905) versus youth in other Missouri rural schools (*n*=3631) showed the same trends (Reinke, 2023). The school and student demographics between these two groups were nearly identical. In Fall 2022, youth in EIS schools reported significantly lower scores on all six indicators of mental health risk on the EIS surveys than these comparison youth. Moreover, when we examined youth with severe scores on these indicators (95th percentile or higher), youth in EIS schools fared far better than their peers on every EIS scale. In fact, on the internalizing indicator, EIS youth had half the risk of reporting severe internalizing or externalizing problems compared to these peers. Likewise, EIS rural school boys and girls were one-third and one-half as likely to report problems with sadness or hopelessness, respectively.

Impact takeaway: The EIS creates a measurable population health pathway - broad reach, sustained use, high-fidelity, and data-based action - that is associated with lower risks and more adaptive student risk trajectories.

9. PULSE and the next generation of EIS work

PULSE - the Psychosocial Universal Lens for Screening and Early Support - is a reduced and optimized version of the EIS. The goal is to retain the most informative indicators while further lowering administration burden. The PULSE work used item response theory to identify critical items on each EIS subscale. The evidence update reports 20 student items and 17 teacher items retained from the original scales (Herman et al, 2026).

Early PULSE factor evidence is promising. Confirmatory factor analysis with 23,301 students found that the reduced teacher items loaded on the expected subscales with excellent fit (CFI = .99, TLI = .98, RMSEA = .04, SRMR = .05). The student PULSE items also showed strong fit (CFI = .97, TLI = .96, RMSEA = .04, SRMR = .05). These results suggest that PULSE preserves the underlying EIS measurement architecture while reducing burden.

Pragmatic risk indicators: the trusted adult example

EIS development also illustrates how user-centered measurement can add pragmatic indicators that are simple, actionable, and theoretically meaningful. One example is the student item asking whether there is an adult at school the student can talk to if help is needed. In a study of 13,881 students across elementary, middle, and high school, not having a trusted adult at school was a strong risk factor for internalizing symptoms. For middle and high school students, lack of a trusted adult was associated with worsening internalizing symptoms over the school year. This kind of item matters because it points directly to an intervention schools can understand: connect the student with a supportive adult.

PULSE direction: The next generation of EIS science is moving toward shorter, optimized, highly actionable systems that preserve validity while further improving feasibility.

10. Implications and next questions

Implications for schools

The practical implication of this body of evidence is that universal screening should not be implemented as an isolated activity. Schools need a repeatable cycle and routine: administer, interpret, plan, support, monitor, and refine. EIS data are most useful when they are reviewed by teams that can make decisions at multiple levels and when those decisions are tied to evidence-based supports and implementation follow-through.

Implications for research

The EIS research program shows what a broader validity agenda can look like. Future studies should continue to evaluate factor structure, reliability, invariance, and predictive validity, but they should also examine whether data are used, whether supports are delivered, whether fidelity is high, whether benefits are equitable, and whether school-level risk patterns change over time. Independent replication in additional states, regions, and school contexts will be especially important.

Implications for policy

Policy discussions often focus on increasing access to mental health services. Access is essential, but EIS science suggests that public systems also need surveillance and prevention tools and frameworks. A school mental health system cannot reduce prevalence if it only reacts to crises. It needs repeated data, actionable reports, resources for universal prevention, intervention menus, implementation supports, and accountability for whether supports reach students.

Summary statement: The EIS is a technically adequate and usable comprehensive school mental health system that has shown promise for impacting population-level student health outcomes.

Conclusion

The science behind the EIS is cumulative. Developmental theory guided the selection of malleable risk indicators. Psychometric studies tested whether those indicators formed reliable and meaningful domains across students and reporters. Concurrent and predictive validity studies showed that EIS domains relate to established measures and later school outcomes. Usability studies tested whether schools could complete, interpret, and use the system. Impact studies then asked whether sustained reach, service linkage, and fidelity to the full model were associated with better student trajectories.

Taken together, the EIS shifts the question from whether schools can identify student risk to whether schools can build sustainable public health routines for reducing risk. The EIS is not simply a measure of youth mental health problems. It is a system for how schools can use valid, repeated, actionable data to support youth before problems become more severe.

Final message: The EIS evidence base supports a simple but powerful proposition: usable measurement, embedded in a school support system, can help move youth mental health work from reactive services toward population-level prevention.

References

American Educational Research Association, American Psychological Association, & National Council on Measurement in Education. (2014). *Standards for educational and psychological testing*. American Educational Research Association.

Damschroder, L. J., Reardon, C. M., Widerquist, M. A. O., & Lowery, J. (2022). The updated Consolidated Framework for Implementation Research based on user feedback. *Implementation Science, 17,* 75.

Herman, K. C., & Bonifay, W. (2023). Best practices for examining and reporting the social consequences of educational measures*. School Psychology, 38*, 129-136.

Herman, K. C., Huang, F., Reinke, W. M., & Thompson, A. (2018). *Validation of the Early Identification System (EIS) for detecting youth internalizing symptoms* [Paper presentation]. Paper presented as part of symposium, Measurement Issues in Screening and Monitoring Youth Internalizing Symptoms, at the International School Psychology Association Conference, Toyko, Japan.

Herman, K. C., Reinke, W.M., Huang, F.L., Shaoli, S. S., Bhuiyan, P., Shim, H. & Graves, B. (2026). Shortening without losing the signal: Development and initial validation of PULSE for school-based psychosocial screening and progress monitoring.

Herman, K. C., Reinke, W. M., Huang, F. L., Thompson, A. M., & Doyle-Barker, L. (2021a). An investigation of the psychometric properties of the Early Identification System-Student Report in a middle school sample. *School Psychology, 36*, 34-46.

Herman, K. C., Reinke, W. M., Thompson, A. M., Hawley, K. M., Wallis, K., Stormont, M., & Peters, C. (2021b). A public health approach to reducing the societal prevalence and burden of youth mental health problems: Introduction to the special issue. *School Psychology Review, 50,* 8-16.

Herman, K. C., Reinke, W. M., Thompson, A. M., Huang, F. L., & Owens, S. (2023). Usability and social consequences of the Early Identification System as a universal screener for social, emotional, and behavioral risks. *School Psychology, 38*, 148-159.

Huang, F. L., Reinke, W. M., Thompson, A. M., Herman, K. C., & County Schools Mental Health Coalition. (2019). An investigation of the psychometric properties of the Early Identification System-Student Report. *Journal of Psychoeducational Assessment, 37*, 473-485.

Masten, A. S., & Cicchetti, D. (2010). Developmental cascades. *Development and Psychopathology, 22,* 491-495.

Messick, S. (1995). Validity of psychological assessment: Validation of inferences from persons responses and performances as scientific inquiry into score meaning. *American Psychologist, 50,* 741-749.

Missouri Prevention Science Institute. (2026). Early Identification System and the PULSE evidence. Technical evidence update.

National Research Council & Institute of Medicine. (2009). *Preventing mental, emotional, and behavioral disorders among young people: Progress and possibilities.* National Academies Press.

Patterson, G. R., DeBaryshe, B. D., & Ramsey, E. (1989). A developmental perspective on antisocial behavior. *American Psychologist*, 44, 329-335.

Reinke, W.M. (2023, May). *National Center for Rural School Mental Health*. Annual Principal Investigators Meeting, Institute of Education Science, Washington, DC.

Reinke, W. M., Herman, K. C., Huang, F. L., McCall, C., Holmes, S., Thompson, A. M., & Owens, S. (2022). Examining the factor structure and concurrent and predictive validity of the Early Identification System-Student Report in an elementary school sample. *Journal of School Psychology, 90,* 114-134.

Reinke, W. M., Herman, K. C., Huang, F. L., Glenn-Perez, A. L., Raut, P., Aguayo, D., Venkat, S., Boddie, D., Harris, J. M., & Owens, S. (2024). Having a trusted adult in school: Concurrent and predictive relations with internalizing problems across development. *Journal of Positive Behavior Interventions, 27,* 135-144.

Reinke, W. M., Herman, K. C., Thompson, A. M., McCall, C., Copeland, C., Holmes, S., & Owens, S. (2021). Investigating the longitudinal association between fidelity to a large-scale comprehensive school mental health prevention and intervention model and student outcomes. *School Psychology Review, 50*, 17-29.

Reinke, W. M., Herman, K. C., Thompson, A. M., & Owens, S. (2025). A comprehensive school-based mental health model: A decade in the making. *Behavioral Sciences, 15,* 1428.

Reinke, W. M., Herman, K. C., Thompson, A. M., Shaoli, S. S., & Bhuiyan, P. (2026). Evaluating a pragmatic universal social behavioral screener: Confirmatory factor analysis, invariance testing, and predictive validity of the Early Identification System-Teacher Report. *Journal of School Psychology, 115*, 101545.

Reinke, W. M., Stormont, M., & Herman, K.C. (2025). Teacher-reported Kindergarten readiness predicting 3rd grade outcomes. *Advances in Mental Health*, 1–17.

Reinke, W. M., Thompson, A. M., Herman, K. C., Holmes, S., Owens, S., Cohen, D., Tanner-Jones, L. A., Henry, L., Green, A., & Copeland, C. (2018). The County Schools Mental Health Coalition: A model for community-level impact. *School Mental Health, 10*, 173-180.

Slaten, C. D., Owens, S. A., Herman, K. C., Reinke, W. M., Rawlings, B., & Gysbers, N. (2021). The coalition model advocating for school counselors' role in improving youth mental health. *Journal of School Counseling, 19*(41).

Thompson, A. M., Herman, K. C., Reinke, W. M., Huang, F. L., Eddy, C. L., & Doyle-Barker, L. (2021). Examining the factor structure and concurrent and predictive validity of the Early Identification System-Student Report in a high school sample. *School Mental Health, 13*, 28-40.

Thompson, A. M., Reinke, W. M., Holmes, S., Danforth, L., Herman, K. C., & County Schools Mental Health Coalition. (2017). The County Schools Mental Health Coalition: A model for a systematic approach to supporting youths. *Children & Schools, 39,* 209-218.

von der Embse, N. P., Kilgus, S. P., Iaccarino, S., & Levi-Nielsen, S. (2017). Screening for student mental health risk: Diagnostic accuracy, measurement invariance, and predictive validity of the SAEBRS-Student Rating Scale. *School Mental Health, 9,* 273-283.