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Corey D. Pierce  
*University of Northern Colorado*, Corey.Pierce@unco.edu

Philip D. Nordness  
*University of Nebraska at Omaha*

Michael Epstein  
*University of Nebraska - Lincoln*, mepstein1@unl.edu

Douglas Cullinan  
*North Carolina State University*

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Applied Examples of Screening Students At Risk of Emotional and Behavioral Disabilities

Corey D. Pierce, PhD,1 Philip D. Nordness, PhD,2 Michael H. Epstein, EdD,3 and Douglas Cullinan, EdD4

1. University of Northern Colorado, Greeley, CO, USA
2. Department of Special Education and Communication Disorders, University of Nebraska at Omaha, Omaha, NE, USA
3. University of Nebraska–Lincoln, Barkley Memorial Center, Lincoln, NE, USA
4. North Carolina State University, Raleigh, NC, USA

Corresponding Author:
Corey D. Pierce, University of Northern Colorado, Campus Box 141, Greeley, CO, 80538, USA. Email: corey.pierce@unco.edu

Abstract
Early identification of student behavioral needs allows educators the opportunity to apply appropriate interventions before negative behaviors become more intensive and persistent. A variety of screening tools are available to identify which students are at risk for persistent behavior problems in school. This article provides two examples in which the Emotional and Behavioral Screener (EBS) was used to identify students at risk of emotional or behavioral problems. Example 1 demonstrates how the EBS can be used within a school-wide positive behavioral interventions and supports framework to inform decision making. Example 2 demonstrates how the EBS can be used to inform behavioral intervention decisions in an individual teacher’s classroom. Finally, suggestions for using the EBS across various school formats are provided.

Keywords: emotional and behavioral disorders, early intervention, at risk, students, assessment

Researchers have estimated that between 5% and 26% of children and youth in the United States meet criteria for a significant emotional or behavioral disability (Brauner & Stephens, 2006). Nonetheless, only a small fraction of these youngsters actually receive treatment (Costello, Egger, & Angold, 2005). Indeed, fewer than 1% of school age children are provided educational supports or services under the Individuals With Disabilities Education Improvement Act of 2004 (IDEA) for emotional disability (ED; Lane, Robertson-Kalberg, Lambert, Crnobori, & Bruhn, 2010). This rate has remained relatively constant over the past few decades, and suggests that many students go unidentified and unserved.

When students at risk of emotional or behavioral problems go without services, there is a heightened chance that their problems will continue into adulthood (Costello, Mustillo, Erkanli, Keeler, & Angold, 2003; Essex et al., 2009). On the other hand, prevention scientists have shown that earlier identification and service support can halt or lessen the degree of problem behaviors and result in more positive outcomes (O’Connell, Boat, & Warner, 2009). In light of the value of prevention services for students who are at risk, policymakers, school personnel, and researchers have urged the development and use of psychometrically sound universal screening instruments to identify students who are at risk for ED (Gage et al., 2010).
The IDEA directs schools to become more active in identifying students with or at risk of ED. The law encourages schools to use special education and other resources to intervene with students before problems become persistent behavioral or emotional disabilities. School personnel are adopting three-tiered models to address emotional and behavioral problems (Robertson & Lane, 2007; Sugai & Horner, 2002; Walker et al., 1996). Obviously, a key consideration in the implementation of a three-tier model is using psychometrically sound screening instruments. To this end, universal screening procedures are needed to assess all students within a schoolwide approach or at selected grade levels to identify those who are at risk and in need of further assessment and/or educational supports (Mellard & Johnson, 2007).

Universal screening tools should address several areas (Glover & Albers, 2007). First, they should focus on those behaviors or emotions that are risk factors for identified behavior issues. Second, they should be applied to all students in a school. Third, the screening instruments should identify a large majority of students as showing few or no at-risk indicators, indicating that they no longer need to be considered for assessment. Fourth, the screening instruments should identify a number of students as at risk of problems, indicating a need for a more thorough assessment or initial intervention. Finally, the screening instrument should require minimal time and cost per student.

In response to the need to screen students, a number of behavior screening instruments have been developed. These measures include the Behavioral and Emotional Screening System (Kamphaus & Reynolds, 2007), Social Skills Improvement System, Performance Screening Guide (Elliot & Gresham, 2008), Strengths and Difficulties Questionnaire (Goodman, 2001), Student Risk Screening Scale (Drummond, 1994), and Systematic Screening for Behavior Disorders (Walker & Severson, 1992). Although a number of these instruments have adequate psychometric characteristics, many possess a number of limitations. Specifically, many of these instruments are time consuming, include multiple steps, require data from two or more respondents, lack national norms (Lane, Menzies, Oakes, & Kalberg, 2012), and do not align with the federal definition of ED as specified in the IDEA (U.S. Department of Education, 2006). To overcome these limitations, the Emotional and Behavioral Screener (EBS; Cullinan & Epstein, 2013) was designed to screen students at risk of emotional or behavioral problems. The EBS was developed to be clear and concise, require a minimum of teacher time, ask for information from one respondent, include national norms on students with and without ED, and possess acceptable psychometric standards (Joint Committee on Standards for Educational and Psychological Testing, 1999). Although the federal definition of ED has been criticized by scholars (Gresham, 2005), the EBS was designed to align with the federal definition of ED as specified in IDEA, as the federal definition is intended to guide school personnel in identifying students as ED for specialized services. The purpose of this article is to describe this behavioral screener and provide examples of how it can be used to address the behavioral needs of student in schools.

The Screener

The EBS is a 10-item scale in which a teacher familiar with the student rates the student on a 4-point Likert type scale (0 = not a problem, 3 = severe problem). The 10 items are added to yield a Total EBS Score, and if the score falls above a predetermined cutoff score, that student is considered at risk for ED. The cutoff score at which a student is considered to be at risk is the 80th percentile; although the actual score varies by student age and gender. The 80th percentile is a reasonable cutoff in light of the Surgeon General’s Report (DHHS, 1999) that estimated approximately 20% of children in the United States to be at risk for behavioral problems.

The EBS was normed on two large national samples of students: a nationally representative sample of students without disabilities (N = 1,101) and a national sample of students with ED (N = 1,152). Based on the national data, the EBS items have demonstrated adequate internal consistency (Cullinan & Epstein, 2013), with almost all alphas well above the .80 level considered adequate (Nunnally & Bernstein, 1994). With respect to reliability, researchers (Nordness, Epstein, Cullinan, & Pierce, 2014), reported short-term test/retest reliability of .90 and interrater reliability of .63 (Hopkins, 2002). With respect to validity, the developers (Cullinan & Epstein, 2013) demonstrated construct validity by differentiating various groups (e.g., disability versus no disability) in terms of likelihood of iden-
tification as ED and convergent validity by correlating the ratings of the EBS with the Behavioral and Emotional Screening System (Kamphaus & Reynolds, 2007). Further validity research reported the EBS to possess a high degree of predictive validity and diagnostic quality (Lambert, Epstein, & Cullinan, 2014). Finally, confirmatory factor analysis and Rasch measurement techniques demonstrated that the EBS can be considered a one-dimensional assessment for risk of ED (Lambert, Epstein, Ingram, Simpson, & Bernstein, 2014).

### Identifying Students

The EBS is suited for use in various ways and situations calling for a brief, easily completed procedure to assess a student’s risk level for having persistent problem behaviors. In general, these uses fall into several categories: (a) universal screening, (b) selective screening, (c) individual screening, and (d) three-tiered behavior prevention models.

**Universal Screening.** Universal screening involves the application of a screening procedure to all students in a group, without consideration of preexisting risk for members of that group (Glover & Albers, 2007; Mrazek & Mrazek, 2005). The objective is to discriminate students who are not at risk from those who are at risk.

What groups are screened in universal screening? A principal may decide to screen all students in the school or a district administrator may decide to screen all students entering a particular grade level. Scientific research cannot specify preferred grades or points in schooling for universal screenings. It is usually best that local educators decide the point at which universal screening is feasible, when screening results can be considered, and how results can be used to guide needed changes in classroom and/or school behavior management. At any rate, EBS results can give an indication that certain students are not at risk whereas other students are at risk and should be given additional consideration. Furthermore, EBS results serve as initial data against which to compare later assessment information, especially if a student has been found to be at risk and has received services as an at-risk student.

**Selective/Individual Screening.** Selective screening involves assessing students whose characteristics establish that they are at risk for ED. Some of these risk characteristics involve the child’s current behavior and/or emotional problems and other risk characteristics such as individual, family, or community characteristics that have been found to be related to emotional and behavior problems (O’Connell et al., 2009). Decisions to screen individual students may also be made. For example, there may be a need for information about a student who has transferred into a school or district. EBS results may find that this student, at this time, does evidence problems indicative of at-risk status and a need for further assessment.

**Behavior characteristics.** There are various problems of emotion and behavior that indicate a student is at risk for eventual identification as ED (Cullinan, 2007). Most of these problems are characterized by disruptive, defiant, aggressive, or other externalizing behaviors that are readily observed by school professionals. This is usually when educators decide that selective screening is appropriate (Kerr & Nelson, 2010). Other student emotional and behavioral problems, however, are not always obvious in school. For example, (a) extreme shyness (failure to start or respond to social interactions) during the elementary years is a risk factor for serious disorders of anxiety; and (b) habitual judgments by a student that he can do few if any things well indicate an elevated risk for later depressive disorder. Screening may help prompt the teacher to recall and consider verbal and other behaviors that indicate patterns of emotion and cognition that put the student at risk.

**Nonbehavioral characteristics.** Being raised by an unmarried young woman; experiencing the divorce of parents; living in a poor, violent neighborhood; or receiving maltreatment by a parent or caretaker are a few of the many nonbehavioral risk factors that predict a disproportionately high likelihood of behavior and emotion problems (O’Connell et al., 2009). Children with one or more of these nonbehavioral risk factors differ in many ways, but they can be thought of as belonging to a group in which all
members have a characteristic that indicates they are at risk. Screening may be helpful in determining level of risk of a student who has exposure to nonbehavioral risk factors.

**Three-Tier Model.** Many school authorities recommend using a three-tier model of behavior problem prevention and intervention in schools (e.g., Lane, Kalberg, & Menzies, 2009; Sugai et al., 2000; Sugai, Horner & Gresham, 2002). One premise of three-tier models is that students fall into three levels of risk. Approximately 80% of students evidence very low risk, about 15% show moderate risk, and around 5% show high risk (Horner & Sugai, 2002). Three-tier models have, as well, three levels of prevention. The first level, *universal* (also called primary or Tier 1), is implemented for all or nearly all students in a school (or classroom) and includes structured classroom time and space, emphasized rules and routines, and reinforcement for prosocial behaviors. The second level is referred to as *selective* (also called secondary, Tier 2, or targeted) prevention; it is directed to students who require more than universal services and involves more educator time, effort, and resources. The third level, *indicated* (also called Tier 3 or tertiary), is targeted to students who did not benefit from selective services, and it consists of intensive, long-term interventions individualized to help a particular student (Kerr & Nelson, 2010; Lane et al., 2009). Screening can support and help educators make decisions on the appropriate level of intervention a particular child requires.

This column provides applied examples of the use of the EBS screening instrument. The first applied example provides a demonstration of using the EBS with a schoolwide setting. The second applied example is designed to show how the EBS can be used with individual students.

**Applied Example 1**

Chad Anderson is the principal of Kennedy Elementary School, a medium-size elementary school in the U.S. Midwest. Ms. Perez, a third grade teacher with 11 years of teaching experience, had a conversation with Mr. Anderson about student behaviors. She was concerned about the number of students displaying inappropriate behaviors in her classroom and in the halls. Mr. Anderson asked Ms. Perez to speak with her fellow teachers to get their perception of behaviors. An informal survey of teachers revealed that most teachers were concerned with the behavior of students. The survey also showed that while they supported the school’s positive behavioral interventions and supports (PBIS) system, the teachers were interested in finding ways to improve student behavior (see Note 1).

Ms. Perez and Mr. Anderson decided to discuss the issue with all of the teachers during a teacher in-service meeting. The teachers expressed that while they were implementing some effective practices as part of the PBIS structure, they said that it took too many weeks into the school year to determine which students needed more behavioral supports. At the next staff meeting, Mr. Schaeffer, a first grade teacher, suggested implementing a screening system to identify behavioral needs. He described the benefits the teachers had shared regarding the use of screening tools to identify the reading and math needs of their students and the potential for similar benefits of using a behavioral screener to inform their PBIS system. While the staff agreed this seemed like a good idea, a few teachers raised concerns about the time needed to assess the behavior of all students. Mr. Anderson agreed to identify an efficient system to screen students for behavioral needs.

After much consideration, Mr. Anderson decided he would present the EBS to the staff as a time-efficient yet technically sound option for screening behavior. The teachers suggested that they could complete the screening on all students during the fifth and sixth weeks of the school year since that is when they would have had sufficient time with the students to accurately rate their behaviors. The results of the ratings would then be analyzed by Mr. Anderson and the PBIS team. Mr. Anderson expected approximately 20% of their students to score in the at-risk category, meaning they were likely to demonstrate continuing and increasingly maladaptive problem behaviors that could impact their own ability to learn as well as overall classroom functioning. The teachers agreed that students who rated in the at-risk category would receive the behavioral supports that are provided to all students through their PBIS system and addi-
tional behavioral supports based on results of the EBS and other student-level data. The teachers agreed these screening data would be used in conjunction with the academic skills screening data to make data-based instructional decisions, a process the teachers were accustomed to from their experience with academic screening data collected in previous years.

During the fifth and sixth weeks of the school year, Mr. Anderson provided each teacher with the forms to rate each student in his/her classroom. The office assistant scored the forms and created a list of students whose total score fell in the at-risk category. Each teacher received the total scores for the students in the class, as well as the completed rating forms. In collaboration with the PBIS team, teachers used these data to determine which students needed behavioral supports to be successful in their classroom and the level and nature of supports each would require. They also made decisions about which students they would like more behavioral data to guide future intervention decisions.

As the teachers and PBIS teams worked to provide behavioral supports, both class-wide and for small groups of students, Mr. Anderson reviewed all of the data to see if any trends existed. He noted that the most frequently rated behaviors were related to “respecting authority figures” and “damaging property.” Mr. Anderson asked the PBIS team to provide the staff with reading materials to review effective class-wide strategies to address these types of classroom behaviors. He also asked them to prepare a brief presentation and to facilitate a question and answer session at the next teacher in-service meeting. He wanted to ensure that the school staff had the necessary skills and tools to support students, in a positive manner, whose behaviors demonstrated a lack of respect for authority and property.

At the end of the year in-service meeting, Mr. Anderson asked the staff to share their thoughts about their use of the EBS within their PBIS system. The teachers said they felt more informed about the behavioral needs of their students, were better able to use the information to make decisions about how their classrooms were designed to encourage positive behaviors, were sending fewer students to the office for discipline referrals, and that the overall behavioral climate was more positive.

Table 1. Jonah’s Emotional and Behavioral Screener Rating.

<table>
<thead>
<tr>
<th>Item</th>
<th>Not a problem</th>
<th>Mild problem</th>
<th>Considerable problem</th>
<th>Severe problem</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anxious, worried, tense</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Destroys and ruins things</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Disrespectful, defiant of authority</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Does not work well in group activities</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Fails to consider the consequences of own acts</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Gets distracted, doesn’t pay attention to teachers or work</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Lacks self-confidence</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Lacks skills needed to be friendly and sociable</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Makes threats to others</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Rejected, avoided by peers</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Column totals</td>
<td>1</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total EBS Score: 10</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Bold circled numbers indicate the rating selected by the teacher for each item in the hypothetical case study.

Applied Example 2

In addition to using a screening instrument in a schoolwide approach, individual teachers may find it useful within their own classroom. Ms. Jennings was a fourth grade teacher who had been teaching for 10 years at an elementary school within a metropolitan area. At the beginning of the school year
she noticed that this particular class of students was much more active and disruptive than many of her previous classes. After the first month, she was sufficiently concerned about classwide behavioral issues as well as some individual behavioral concerns that she decided to complete the EBS on each student to determine which students might be at risk of continuing behavior problems and which problem behaviors might be the most prevalent within the classroom.

After completing the EBS on every student, Ms. Jennings had one male student named Jonah who had a total score of 10 (see Table 1), which would suggest that he might be at risk for demonstrating persistent problem behaviors that could impact his ability to learn. Specifically, she rated Jonah as having a severe problem for Item 6, “Gets distracted, doesn’t pay attention to teachers or work,” and a considerable problem for areas of respect (Item 3), working in groups (Item 4), and understanding the consequences of his actions (Item 5). As a result, Ms. Jennings decided to attempt a few interventions with Jonah. First, she met individually with Jonah to review the expectations for her classroom. They discussed each of these expectations in detail, identified examples and nonexamples of the desired on-task behaviors, and role-played activities to check for understanding. Second, to help generalize these expectations, Ms. Jennings set up a self-monitoring system for increasing Jonah’s on-task behavior. She implemented the intervention during reading class because that was the class in which Jonah’s off-task behavior seemed to be most prevalent. Ms. Jennings placed an on-task tracking form on Jonah’s desk and provided him with a MotivAider device that vibrated every 5 minutes for a 30-minute class period. When a vibration occurred, Jonah checked a box that noted whether he was on-task or off-task at the moment of the vibration. At the end of the class period, Jonah received a token for each time he was on-task. At the end of the week he could turn in his tokens for a reinforcer of his choosing. In addition to these interventions, Ms. Jennings set up a system for collecting data on the identified problem behaviors. This enabled her to determine if her intervention efforts were working and would provide additional data if she needed to recommend a more formal behavioral assessment.

In addition to Jonah, Ms. Jennings noticed that she rated a number of students high on Item 6 (Gets distracted, doesn’t pay attention to teachers or work). She determined that this might be caused by a new seating arrangement she was trying this year. Instead of using rows, she had organized the desks in groups of four with each corner touching the other. She considered that the closer proximity of the students to one another might be creating more distractions as the students engaged in more social, off-task behaviors. She decided to arrange the desks in rows again and carefully organized the seating arrangements so that students who engaged in more frequent off-task conversations were not placed too close together. She also reviewed the classroom expectations for on-task behavior and developed roleplay activities so that students could demonstrate their understanding of the expectations.

Conclusion

The success of screening for behavior problems depends on the use of appropriate, psychometrically sound assessment instruments. A screening measure for school use should be brief, easy to implement, and otherwise feasible for teacher application on a schoolwide, classwide, or individual teacher basis. It should be age-appropriate, sensitive to the developmental levels of students, and reliable and valid. The EBS was developed in part to address the need for a screening procedure that is useful for achieving screening goals.

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Note

1. The vignettes presented in this article represent fictionalized accounts based on the research literature and are not based on actual people or events observed by the authors.
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