

Proactive, early screening to detect behaviorally at-risk students: Issues, approaches, emerging innovations, and professional practices

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Abstract

This article provides a review of current practices and tools used in the proactive screening of behaviorally at-risk students within the context of schooling. While there are many obstacles to the early detection of vulnerable students, some recent developments have helped make educators more receptive to early identification and prevention approaches. In addition to describing current best practices, this article reviews promising innovations in screening and early identification that the authors believe are worth considering and whose structural characteristics, required accommodations, and critical features may make them more acceptable to educational users. Implications for the training of school psychologists in the screening and early identification of high-risk students are reviewed and recommendations offered for future research.

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During the past two decades, considerable progress has been made in the proactive, universal screening of behaviorally at-risk students (a) who are on a trajectory to later destructive outcomes due to risk factor exposure in the first five years of life and (b) who present moderate to severe behavioral challenges to their teachers, peers, and sometimes primary caregivers (Loeber & Farrington, 2001; Reid, Patterson & Snyder, 2002). There seems to be broad agreement that behavioral screening approaches should be cost efficient and accurate, display acceptable degrees of specificity and sensitivity, and incorporate multiple methods and informants (see Glover & Albers, 2007). However, these best practice characteristics are often notably absent in the routine screening efforts of many school systems.

This special issue of the *Journal of School Psychology* examines the current status of the field with respect to proactive screening models and the key implementation and utilization issues associated with them. This article addresses the process of screening for behaviorally at-risk students in school settings from a universal, proactive perspective and advocates for best practices in this regard. We also focus upon the need for early detection of vulnerable, at-risk students via the instrument of behavioral screening. Topics addressed herein include: (1) the status of schools' routine practice(s) in behavioral screening, (2) recommended tools for use in behavioral screening, (3) current best practices in screening and identification, (4) emerging innovations in behavioral screening and early detection of at-risk students, (5) considerations in next-generation approaches for screening of at-risk students, (6) staff training and implementation fidelity considerations in behavioral screening, and (7) a research agenda for screening.

The status of schools' routine practice(s) in behavioral screening

Historically, schools have viewed their primary mission as accomplishing the academic development of all students. The social-behavioral development of students, in contrast, is commonly regarded as a secondary mandate, and many educators have questioned this goal as a legitimate priority for schools. Lloyd, Kauffman, Landrum, and Roe (1991), in a revealing study, investigated the frequency, timing, and reasons for referral to special education by regular teachers in several school districts in Virginia. They found that referral for behavioral reasons ranked only 7th out of the top 10 reasons for teacher referral; the first 6 referral reasons involved learning and sensory problems. These findings were replicated by Del'Homme, Kasari, Forness, and Bagley (1996), who also found that young students with academic problems were more likely than those with behavior problems to be referred to special education.

Although referral by regular classroom teachers is the most common pathway to certification as having an emotional or behavioral disorder under federal legislation, it is also regarded as the most vulnerable to bias due to the differing behavioral and performance expectations that exist among teachers (Hersh & Walker, 1983; Lloyd et al., 1991). The investigation of Lloyd et al. (1991) showed that the referral peak for students with academic problems occurred between grades 2 and 3; in contrast, other research shows that the referral peak for students with behavior problems occurs in grade 9—seven years later (see Walker et al., 2000).

Thus, while school personnel typically screen student populations for such problems as reading and learning difficulties, low vision, and hearing impairments, screening for the

early detection of school related behavior problems ranks at a far lower priority level within most school systems. Behavior problems and poor social–emotional adjustment typically are not regarded by teachers as their responsibility, and they tend to have weak ownership of them as a result. For example, research by Gerber and Semmel (1984) has shown that if challenging students deviate too far from an idealized “teachability standard” of student compliance and cooperativeness, their teachers tend to regard them as someone else’s responsibility and are likely to initiate processes designed to have them reassigned to other settings. Getting teachers to invest their time and effort in solving student behavior problems thus becomes problematic, and asking them to engage in processes to *proactively* screen and identify those students having adjustment problems can be particularly difficult. Kauffman (2004) has illustrated how well meaning arguments about avoiding the stigma of identification as Emotional and Behavioral Disordered (EBD), the lack of available services for identified students, and the overarching importance of addressing academic performance versus emotional and behavioral needs have “prevented the prevention” of serious behavioral and emotional disorders among at-risk children.

Several developments occurring over the past decade have provided countervailing pressures against the historic resistance of schools to the proactive early screening and detection of behaviorally at-risk students (Kauffman, 1999). These developments point to a need for schools and teachers to take ownership of behavioral issues within the learning environment. The first involves the massive shock and trauma that the school shooting tragedies of the mid to late 1990s produced in our society. These tragedies led to severe pressures from parents, legislators, and the general public to secure schools, to turn them into fortress-like structures, and to identify at-risk students who were judged likely to commit a violent act at some point in the future. A residual effect of these pressures is that school administrators are now more sensitive to the needs and problems of at-risk students enrolled in their schools and are generally more responsive to their needs. As Albers, Glover and Kratochwill have noted herein, the Presidential Commission on Excellence in Special Education and the No Child Left Behind Act have both called for the early identification and intervention with young children who are experiencing academic and behavioral problems.

The second development results from the societal press for a greater return on its extensive investments in research to address the mental health problems of children and youth. The search for evidence-based programs and approaches has been a highly visible outcome of this societal concern, with some states mandating that a substantial portion of state agency funds be invested in program models that meet evidence-based criteria (Kratochwill, Albers, & Shernoff, 2004; Kratochwill & Shernoff, 2004). This development has resulted in a much stronger emphasis upon prevention and acceptance of the principle that proactive screening and detection of problems early in their destructive trajectories are essential to later successful outcomes (see *Report of the Alliance for School Mental Health*, 2005).

A third influence is the movement toward prevention of academic and mental health problems in children and adolescents (Kratochwill et al., 2004). Schools are increasingly embracing models of prevention to deal with the large number of students who need services. Multi-tiered models of prevention are being considered, and screening is linked to initial identification of students who may profit from more intense services in the school and community (Severson & Walker, 2002).

On balance, schools now seem somewhat more responsive to the need for proactive, early identification of behaviorally at-risk students and can verbalize reasons for its importance. Schools have a key role to play in the academic and social–emotional development of all students and assisting them in forging healthy teacher and peer relationships (Horner et al., 2005). In our view teachers and school psychologists can promote early screening in schools if they are invested in the value of early intervention(s) and the relationship between screening and effective interventions for problem behaviors.

Recommended tools for use in behavioral screening and assessment

In the fall of 2004, the Office of Special Education Programs (OSEP) funded four national Behavior Research Centers (BRCs) to conduct scientific research on promising intervention approaches for use with moderately to severely involved students having school related behavior problems. The four centers form a consortium that is coordinated by the National Behavior Research Coordination Center (NBRCC), located at Stanford Research Institute and directed by Mary Wagner, Ph.D. of the Stanford Research Institute (SRI). The centers are located at the University of Washington, Oregon Research Institute, Vanderbilt University, and the University of South Florida.

SRI researchers and OSEP project managers formed an expert panel to review the behavioral screening and assessment literature with the goal of finding optimal measures that could be used in the early detection and assessment of students at-risk for behavior disorders. The results of this review are shown in Table 1, which provides a profile of selected measures considered appropriate for screening. The expert panel determined that there was an appropriate research base to support the use of these screening tools. In addition, the literature was reviewed for information about assessments that could be used to confirm or validate the presence of a behavior disorder.

A search of the ERIC database using the key words “behavior*”, and “screen*”, produced the literature that went into a matrix of behavioral screening measures. To be categorized as a “screeener,” the instrument had to have the specific title of screener in its description and/or have been used effectively as a screening tool in previously reported studies. The professional literature was next reviewed to find information on the following characteristics of these screening tools: (a) targeted individuals and informants (e.g., teacher, parent); (b) validated use and basic formatting (e.g., response scaling, such as dichotomous or Likert scales); (c) normalization sample and psychometric characteristics (e.g., reliability and validity); (d) factors or groupings within the screener’s measures (e.g., scales that specify competence in specific content areas); (e) findings regarding the measure’s effectiveness in identifying students at-risk of having a behavior disorder; (f) barriers to the instrument’s effectiveness; (g) evidence of effectiveness when used in conjunction with other instruments; and (h) record of use in assessment(s) and screening of special populations.

The instruments’ characteristics and evidence of effectiveness, as presented in the professional literature, was compiled by the expert panel to enable decisions about which instruments had the highest level of evidence as being both appropriate and cost-effective for screening and assessment purposes. Table 1 displays the characteristics and key factors for each of the selected behavioral screeners.

Table 1
Profile of published tools for accomplishing behavioral screening

Behavior screeners							
Assessment	Purpose and format	Sample and psychometrics	Syndromes/factors/groupings	Positive findings	Drawbacks	Combinations of tests	Special populations
Systematic Screening for Behavior Disorders (SSBD; Walker & Severson, 1990)	<ul style="list-style-type: none"> Multiple-gating screening device for ID of students at-risk for EBD 	<ul style="list-style-type: none"> 4500 cases on Gate 2 measures 	Externalizing (aggressive, hyperactive, noncompliant, antisocial, etc.) and Internalizing (e.g., phobic, depressed, anxious, isolated from peers)	<ul style="list-style-type: none"> 85% correctly classified 	Perceived time and expense for administration; lack of long-term predictive validity		
	<ul style="list-style-type: none"> Twice a year 	<ul style="list-style-type: none"> 1300 Cases on gate 3 from 4 U.S. census zones (AET and PSB codes 1300 cases 		<ul style="list-style-type: none"> Typically identifies 1 externalizer in every classroom and one internalizer in every 2 or 3 classrooms 			
K-6	<ul style="list-style-type: none"> 1st Gate: teacher nominates 3 students for external or internalizing 	<ul style="list-style-type: none"> Inter-rater reliability coefficients for externalizing .89 to .94 and internalizing .73 to .88. 		<ul style="list-style-type: none"> Reliably differentiates st w/ and w/out EBD and between externalizers, internalizers, and non-referred st. 			

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Table 1 (continued)

Behavior screeners							
Assessment	Purpose and format	Sample and psychometrics	Syndromes/factors/groupings	Positive findings	Drawbacks	Combinations of tests	Special populations
Respondent: teacher (and school professional)	<ul style="list-style-type: none"> • 2nd Gate: teacher ratings of 3 students ranked highest on externalizing problems and 3 on internal 	<ul style="list-style-type: none"> • Test/retest reliability coefficients .76 externalizers and .74 for internalizers 		<ul style="list-style-type: none"> • Best instrument for screening and ID of students with behavior disorders (Elliot & Busse, 1993) 			
Grantees using as screening: UW (2 stages)	<ul style="list-style-type: none"> • 3rd gate: School profess assesses on 2 measures school adjust w/direct observations 			<ul style="list-style-type: none"> • Results of the initial stages are cross validated by the subsequent stages 			
UO (3 stages)	<p>Administration time: stage 1 nomination and ranking requires 45 min. Stage 2 ratings of adaptive (12) and maladaptive (11) items require 45 min for 6 nominated students</p> <p>Response scale: Stage 1 involves teacher nomination and rank ordering of 3 externalizers and</p>			<ul style="list-style-type: none"> • First 2 screening stages completed by classroom teacher in approximately 1 h 			

3 internalizers.
Stage 2 ratings
involve a 1–5
frequency scale
of adaptive and
maladaptive behavior

SSBD: Critical
Events Index
(CEI)

- CEI measures used w/in multi-method assessments of at-risk behavioral status

- Gresham, MacMillan, and Bocian (1996) Using combinations of social competence, external, internal, and school history, correctly ID'd 85% of high-risk group and 78% of low-risk group.

Respondent:
teacher

- Checklist assesses 33 externalizing and internalizing behavior problems
Administration time: 5 min per nominated student

- Blechman and Hile: CEI bias-free screener; systematic documentation of all critical events; provides most effective and least expensive method of screening for at-risk students

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Table 1 (continued)

Behavior screeners							
Assessment	Purpose and format	Sample and psychometrics	Syndromes/factors/groupings	Positive findings	Drawbacks	Combinations of tests	Special populations
	Response scale: Checklist of listed attributes requiring a yes or no response.						
SSBD Academic Engaged Time (AET) Respondent: teacher	<ul style="list-style-type: none"> Stopwatch measure of classroom observations Administration time: 2, 20 min classroom observations of AET Response scale: % of observed time AET is displayed	1300 cases					
SSBD Peer Social Behavior (PSB) Respondent: teacher	Record the level, quality, and distribution of the target student's playground behavior during 2 20-minute session Administration time: 2, 20 min observations of playground using		1300 cases				

	<p>a partial interval code Response scale: % of intervals in which target behavior is displayed; overall rates of estimated positive and negative social behavior</p>						
School Social Behavior Scale (SSBS; Merrell, 1993)	<ul style="list-style-type: none"> • Comprehensive social behavior assessment of positive social skills and antisocial problem behavior. 	<ul style="list-style-type: none"> • 1858 K-12 students (1025 males and 833 females) 	<ul style="list-style-type: none"> • Social competence: interpersonal skills, self-management skills; academic skills 	<ul style="list-style-type: none"> • 70% students w/ BD correctly classified 	<ul style="list-style-type: none"> • 82% of original sample Caucasian 	<ul style="list-style-type: none"> • -Moderate to very strong relationship w/ Connors Teacher Rating Scales • Correlations w/ CBCL-DOF weak to moderate for problem behavior and moderate for on-task (Merrell, 1993) 	<ul style="list-style-type: none"> • Very small effects found in relationship between SSBS and SES • Negligible effect between SSBS and race
K-12		<ul style="list-style-type: none"> • 18 different states and four different regions 	<ul style="list-style-type: none"> • Antisocial behavior: hostile-irritable, violation of school rules, disrupt school activities 	<ul style="list-style-type: none"> • Cronbach's alpha: .98 or major scales and .94 to .96 for six subscales 	<ul style="list-style-type: none"> • The social-competence rating is not as good as the antisocial behavior scale in measuring the appropriate behaviors. 		
Respondent: teacher or other school personnel rating of single children	<ul style="list-style-type: none"> • Teacher-related and peer-related forms of social competence and antisocial behavior 	<ul style="list-style-type: none"> • Mix of SES and location (e.g., suburban, rural) 	<ul style="list-style-type: none"> • Cut-off point at 5% (highest of lowest depending on which area). Screening criteria should be set loosely when assessing students at-risk. 	<ul style="list-style-type: none"> • Test-retest reliability coefficients in moderate to high range 	<ul style="list-style-type: none"> • Not a great measure of internalizing 		

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Table 1 (continued)

Behavior screeners							
Assessment	Purpose and format	Sample and psychometrics	Syndromes/factors/groupings	Positive findings	Drawbacks	Combinations of tests	Special populations
	<ul style="list-style-type: none"> • Designed to be part of multi-source, multi-method assessment for classification and determination of special program eligibility • Can be used to determine intervention <p>Administration time: 10 min, 65 items</p>	<ul style="list-style-type: none"> • 12.3% received special ed services (5.8 LD, 1.8% MR, 1.2 EBD) • EBD and LD boys had substantial overlap and no significant differences on social competence scales (Walker, Nishioka, Zeller, Severson, & Feil, 2000). 		<ul style="list-style-type: none"> • Interrater reliability: .72 to .83 on Social Competence and .53 to .71 on Antisocial Behavior • Interrater reliability between resource room teachers and paraprofessionals ranged from .72 to .83 for Social Competence and .53 to .71 for Antisocial Behavior • The antisocial Behavior scale reflects a construct composed of antisocial, aggressive, oppositional, and disruptive behavior. Characteristics. Can make inferences regarding subdimensions of these constructs 			

	Response scale: 5-point Likert scale with 3 anchor descriptives Never, Sometimes, Frequently			which can lead to intervention. • Positive Reviews: Demaray, Ruffalo, and Carlson, 1995; Hooper, 1998; Kreislner, Mangione, and Landau, 1997; Welsh, 1998	
The Revised Behavior Problem Checklist (Quay & Peterson, 1987)	<ul style="list-style-type: none"> • A teacher-rating scale widely used with school-aged children (ages 5–18) 	<ul style="list-style-type: none"> • Absence of representative national norms. Normative data by grade and gender for factor scores on sample of 869 school children in four states in grades K-12. Correlations with direct observations support concurrent validity (Lahey & Piacentini, 1985). 	<ul style="list-style-type: none"> • 6 subscales measure conduct disorder, socialized aggression, attention problems-immaturity, anxiety-withdrawal, psychotic behavior, and motor tension-excess 	<ul style="list-style-type: none"> • Norms based on teacher ratings are provided for Grades K-12. 	<ul style="list-style-type: none"> • Lack of representative national norms
Respondent: teacher or Parent	<ul style="list-style-type: none"> • Used to screen for behavior disorders in schools and to select subjects for research on behavioral disorders 			<ul style="list-style-type: none"> • Mean internal consistency reliabilities range from .73 to .94 for the 6 subscales. Internal reliabilities, based on teacher ratings, range from .52 to .85. 	

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Table 1 (continued)

Behavior screeners							
Assessment	Purpose and format	Sample and psychometrics	Syndromes/factors/groupings	Positive findings	Drawbacks	Combinations of tests	Special populations
Spanish translation	Administration time: 20 min, 89 items Response scale:	<ul style="list-style-type: none"> • Strong psychometric characteristics (Epstein, Nordness, Nelson, & Hertzog, 2002). • Excellent construct validity: Over 100 studies demonstrate basic validity of the RBPC (Lahey & Piacentini, 1985; Quay, 1977, 1983). 		<ul style="list-style-type: none"> • Reliabilities correlating the mothers and fathers' ratings range from .55 to .93 (Quay & Peterson, 1983) 			
Eyberg Child Behavior Inventory (ECBI; Eyberg & Ross, 1978; Eyberg & Pincus, 1999) and Sutter-Eyberg Student Behavior Inventory (SESBI; Sutter & Eyberg, 1999)	<ul style="list-style-type: none"> • Parent and Teacher rating scales of disruptive behaviors in home and school settings. 	<ul style="list-style-type: none"> • 1384 children from Northwestern states varying SES 	<ul style="list-style-type: none"> • According to publishers (PAR): 	<ul style="list-style-type: none"> • Referred children had significantly higher scores than non referred children; homogenous measure of disruptive behavior. 			<ul style="list-style-type: none"> • Research: Webster-Stratton, Kolpacoff, & Hollinsworth, 1988; McMahon & Forehand, 1988)

Ages 2–17	Administration time: 5 min, 36–38 items	<ul style="list-style-type: none"> • Used to screen children for conduct-disorder treatment programs and to evaluate efficacy of treatments • Characteristics of child had little effect on frequency and problem scores 	<ul style="list-style-type: none"> • The ECBI Intensity and Problem scales demonstrated high internal consistency, significant test-retest reliability, and significant interrater reliability, as well as convergent and discriminant validity. • The newly developed SESBI-R intensity and problem scales demonstrated high internal consistency and significant test-retest reliability, as well as convergent, discriminant, and predictive validity. 	<ul style="list-style-type: none"> • 7.9 and to 10.4% in clinical range. • A homogenous measure of disruptive behaviors (Burns, Patterson, Nussbaum, & Parker, 1991). • Characteristics of the child and rater had very little effect on frequency or problem scores (Burns, Patterson, Nussbaum, & Parker, 1991). 	<ul style="list-style-type: none"> • Children age 2–5 w/ family income less than \$10,000 and parent not graduated from HS most often in clinical range (25%).
Respondent: parent (ECBI) and teacher (SESBI)	Response scale: 7-point intensity scale (for frequency of behavior) and yes/no problem scale for each item				

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Table 1 (continued)

Behavior screeners							
Assessment	Purpose and format	Sample and psychometrics	Syndromes/factors/groupings	Positive findings	Drawbacks	Combinations of tests	Special populations
Grantees using as assessment: USF							
Drummond's Student Risk Screening Scale (SRSS; Drummond, 1993)	<ul style="list-style-type: none"> • Screens whole classrooms 		7 Behavior categories:	<ul style="list-style-type: none"> • Brief 			
Respondent: teacher	Administration time: 5 min, 7 items Response scale: Likert scale (0 to 3)		<ul style="list-style-type: none"> • Steal • Lie/cheat/sneak • Behavior problem • Peer rejection • Low academic achievement • Negative attitude • Aggressive behavior 	<ul style="list-style-type: none"> • Research based • Easily understood • Valid • Cost efficient (Feil, Severson, & Walker) 			
Connor's Rating Scales-Revised	<ul style="list-style-type: none"> • Checklist used to assess disruptive, 	Norms based on a sample of 8000+	Scales include:	<ul style="list-style-type: none"> • Short and easy to administer; 	<ul style="list-style-type: none"> • Low reliability 	<ul style="list-style-type: none"> • Moderate to high 	

(CRS-R; Conners, 1990)	off-task, or negative behaviors at home and at school	children and adolescents, males and females ages 3 to 17	(Fennerty, Lamber, & Majsterek, 2000).	correlation between related subscales of Conner’s and Quay-Peterson Checklist.	
Age 3–17	<ul style="list-style-type: none"> ● Recommended for screening purposes 		<ul style="list-style-type: none"> ● Oppositional 	<ul style="list-style-type: none"> ● Popular with school personnel 	<ul style="list-style-type: none"> ● Focus on weaknesses of students only (Fennerty, Lamber, & Majsterek, 2000).
Respondent: Teacher, Parent, or Student (ages 12–17)	<ul style="list-style-type: none"> ● Each form has a short or long version 		<ul style="list-style-type: none"> ● Cognitive problems/inattention 		
Grantees using as assessment: USF	Administration time: Short version (26–30 items): 5–10 min; Long version (59–87 items): 15–20 min		<ul style="list-style-type: none"> ● Hyperactivity 		
			<ul style="list-style-type: none"> ● Anxious–Shy ● Perfectionism ● Social problems ● Psychosomatic ● Conners’ Global Index ● DSM-IV symptom subscales ● ADHD index 		
	Response scale:				

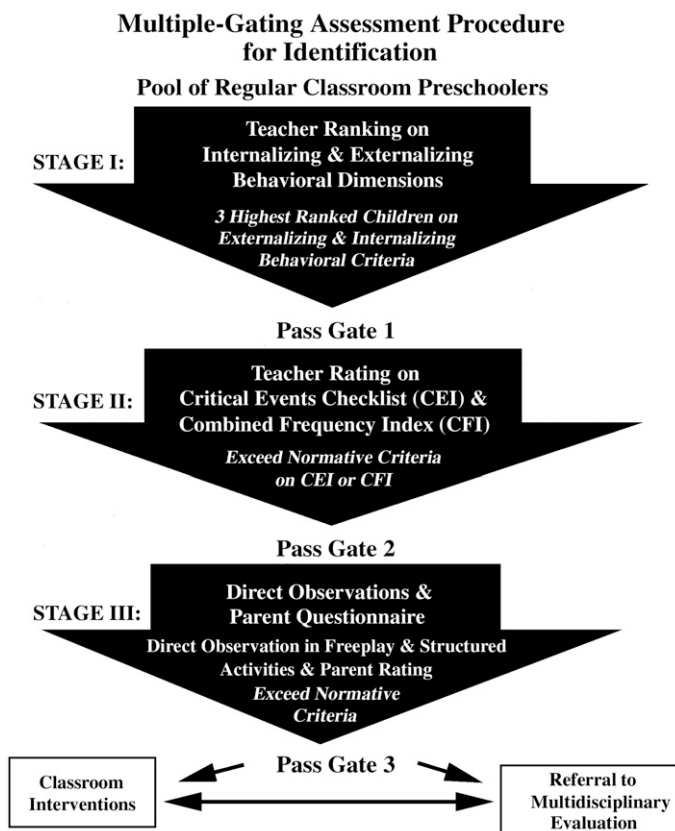
The panel agreed on the final matrix that contained six screeners. Analysis and discussion of the instruments' characteristics pointed to one measurement tool that had the desired standardization and normative characteristics required in a behavioral screener and that also had multiple points of evidence regarding its cost-effectiveness, especially as used in intervention studies. This screening tool, the *Systematic Screening for Behavior Disorders* (SSBD) procedure (Walker & Severson, 1990) was endorsed in the behavioral assessment literature and had been used in numerous studies to screen elementary-aged children for behavior problems of an externalizing and internalizing nature. Points of evidence that led the expert panel to choose the SSBD included the national normative sample of 4500 cases for the Gate Two rating scale measures and the normative sample of 1300 cases for the Gate Three observational measures of academic engaged time (recorded in the classroom) and positive social behavior (recorded on the playground). Additional reasons for choosing the SSBD included: (a) its ability to distinguish between externalizers and internalizers (Elliot & Busse, 2004); (b) the multiple gating procedures that served as a method of cross-validation within the overall instrument; (c) perceived acceptability of the instrument throughout the field of behavior disorders; and (d) the instrument's inclusion in two of the four centers' original research proposals. The expert panel did not attempt an exhaustive review of the screening-assessment literature; thus, the matrix categories do not contain exhaustive information for every possible instrument that could be useful and acceptable for screening (see Table 1).

Current best practices in screening and identification

The instruments profiled in Table 1 provide professional consumers with a number of acceptable methods for accomplishing screening for behaviorally at-risk students. They also illustrate three approaches to behavioral screening that differ in their procedures, that have proved effective, and that are, in our view, substantial improvements over the spontaneous referral by regular teachers of students with behavior problems. These approaches involve (1) multiple gating procedures, (2) teacher evaluation and Likert rating(s) of all students in the classroom on a common set of behavioral criteria, and (3) teacher nomination of problem students followed by Likert rating(s) of their behavioral characteristics and social skills. Each approach is briefly described in the following material.

Multiple gating procedures

The *Systematic Screening for Behavior Disorders* (SSBD) procedure (Walker & Severson, 1990) illustrates multiple gating models of screening and assessment that accomplish the universal screening of all students in a classroom by incorporating traditional assessment tools (teacher nominations, Likert ratings, in vivo observations) into an integrated assessment system with screening criteria and cutoff points established for each screening stage. Fig. 1 illustrates the SSBD multiple gating model used for screening and identifying students who are at risk for either externalizing or internalizing behavior problems. This system was developed in the mid-1980s and has been extensively researched during the past 16 years since its publication (Feil, Severson, & Walker, 2002; Walker, Ramsey, & Gresham, 2004; Walker & Severson, 1990).



Adapted from: Feil, E., Severson, H. and Walker, H. (1994),
Early screening project: Identifying preschool children with adjustment problems.
The Oregon Conference Monograph, Vol. 6.

Fig. 1. Multiple gating process used by the systematic screening of behavior disorders.

The SSBD is also designed for use in tandem with the School Archival Records Search (SARS) (Walker, Block-Pedego, Todis, & Severson, 1991) which can be used to partially validate results of the three SSBD screening gates. SARS is a standardized archival records search procedure that provides a template for extracting information from existing school records which can be quantified, aggregated, and used to create student profiles in three domains: low achievement, needs assistance, and disruption. Examples of the 11 school records variables that are coded by the SARS include office discipline referrals, negative narrative comments, in school and out of school referrals for services, special education certification and so on.

Walker et al. (2001) have cited the numerous advantages of a multiple gating approach in improving the quality of teacher referrals of at-risk, Behavioral Disordered (BD) students as follows:

- Accuracy of screening is cross-checked in that each subsequent stage or screening gate either confirms or disconfirms results of the preceding one.

- Each student is provided an equal chance to be identified and his or her behavioral characteristics are considered in the context of those of typical peers.
- Multiple gating approaches are cost effective in that the number of students at each level of screening is reduced while the intensity and sensitivity of the screening process increases with each successive screening stage.
- Multiple gating procedures usually incorporate multiagent, multisetting, and multi-method forms of assessment.

These approaches are also proactive rather than reactive in nature and they provide referring teachers with a standard or uniform information base for use in referring students. It is recommended that multiple gating screening assessments occur twice during a school year: (1) after approximately a month to six weeks following the beginning of school to allow teachers time to become familiar with the behavioral characteristics of their students, and (2) at the beginning of the second semester to account for changes in students' behavior patterns and to accommodate the transfer of new students into the school. Proactive, universal approaches to screening, as illustrated by multiple gating methods, are increasingly recognized as an essential component of best practices in the prevention of child mental health problems (Jensen, 2001).

Teacher evaluation and rating of all students on common behavioral criteria

Drummond (1993) has developed a highly accurate and cost-efficient system for maximizing teacher judgment in the evaluation of students' risk status for antisocial behavior. The *Student Risk Screening Scale* (SRSS) consists of seven behavioral indicators of antisocial behavior patterns identified from the extensive professional literature on this topic (e.g., steal, peer rejection, sneaks, aggression, etc.). Drummond (1993) adapted these indicators into a rating format in which the regular teacher evaluates and assigns a frequency-based, Likert rating (0–3) to each student in the class in relation to the seven behavioral criteria listed across the top of the form. Total scores on the SRSS can range from 0 to 21 with scores of 9–21 indicating high risk, 4–8 indicating moderate risk, and 0–3 defining low risk status.

Five criteria were adopted to guide development of the SRSS. They included the following: *brevity, evidence or research-based, easy to use and understand by teachers, valid, and powerful*. These criteria reflect the broadly held view that cost-effectiveness is a key attribute in the success and acceptance of mass screening efforts. Longitudinal follow-up studies by Drummond of students who scored in the high-risk range on the SRSS showed that they encounter a number of later destructive school and community outcomes.

The SRSS is highly recommended for use in initial screening when school personnel are seeking to proactively detect students with emerging antisocial behavior patterns. This screening procedure reflects the value of structured teacher judgment in the identification of students who are on a path to destructive outcomes.

Teacher nomination of problem students followed by Likert ratings of their behavioral characteristics and social skills

A third approach to facilitate screening and referral involves a 3-step procedure wherein (1) teachers are provided with developmentally appropriate information about the

behavioral signs of school adjustment problems that students experience; (2) teachers nominate those students whom they think meet this behavioral profile; and (3) they are then asked to complete a technically adequate, comprehensive rating scale that provides more complete information on the referral concerns and the student's overall behavioral status and/or social skills. These instruments commonly have normative data bases and cut-off scores, defining varying levels of risk status, that provide some indication of the likely severity of the students' problems.

There are a number of highly regarded rating scales that are commonly used in the teacher referral process. The three behavior rating scales that are recommended for this validation process are: (1) the *Child Behavior Checklist* (Achenbach, 1991), (2) the *Social Skills Rating Scale* (Gresham & Elliott, 1990), and (3) the *Behavioral and Emotional Rating Scale* (Epstein & Sharma, 1998). Although these rating scales are recognized as being used primarily for behavior assessment purposes, they also have substantial value in evaluating teacher behavioral referrals and in the detection of behaviorally at-risk students. Further, each has a parent version that allows for the cross setting and cross informant assessment of the child's behavior and skill levels which, in turn, add considerably to the construct validity of these instruments.

Merrell (1993, 1999, 2001) has written extensively about the appropriate uses of Likert-type rating scales for assessing the behavioral characteristics and social skills of school-age students. He has developed important standards and recommendations for effectively using rating scales in the evaluation of student characteristics and their social behavior status; his contributions are highly recommended as a resource for professionals in this regard.

As noted earlier, each of the above approaches to screening and identification represents a substantial improvement over the "wait to fail" model of teacher referral that has traditionally been the practice in many public schools. In this model, a student typically can only access school-based supports and services if the regular teacher makes a referral. It is well known that teachers substantially under refer students with behavior problems—particularly those with internalizing type problems and disorders (Kauffman, 1999; Lloyd et al., 1991). It is strongly recommended that school systems adopt universal screening approaches that (a) allow for the mass screening and evaluation of all students in a school and that (b) move routine school practices away from a reactive and toward a more proactive posture in this vitally important area. In addition to the types of screening and assessment procedures described above, there are some emerging innovations that provide new, alternative methods of screening and detection of problem students.

Emerging innovations in behavioral screening and early detection of at-risk students

In the past decade, some innovations in the screening and profiling of students have emerged that show considerable promise. They are (1) the systematic recording and analysis of archival school records resulting from disciplinary infractions commonly referred to as office discipline referrals (ODRs), (2) screening on the basis of Response to Intervention (RTI) where certain students fail to respond adequately to an appropriate intervention implemented with good treatment fidelity, and (3) screening for exposure to risk factors that are associated with destructive outcomes. These innovations are described briefly below.

Recording and analysis of office discipline referrals

Disciplinary referrals of problem students to the principal's office following a behavioral episode involving the teacher and the student, that requires administrative involvement for resolution, has emerged as a most useful tool for (a) identifying behaviorally at-risk students and (b) determining which ones are in need of school-based, behavioral supports and intervention. Office discipline referrals of this type nearly always result in a written record that usually becomes a part of the student's archival school records (Walker et al., 1990). Some school systems preserve these archived records across school years while others destroy them following the end of each school year.

Sugai, Sprague, Horner, and Walker (2000) have conducted extensive research on ODRs in the past five years. To date, they have built an invaluable normative database on ODRs that is increasingly used by school administrators and related services personnel in evaluating the climate of school settings, the impact of school interventions, and the behavioral status of individual students and groups of students. Results of this research indicate that middle school students average a much larger number of ODRs than elementary students. Further, Sugai et al. (2000) found that the top 5% of elementary students with the most disciplinary referrals accounted for approximately 59% of total ODRs within the school; at the middle school level, this group accounted for 40% of total ODRs. This outcome parallels the findings in juvenile justice where 6–8% of youth account for 60–65% of all delinquent acts (Loeber & Farrington, 1998; Sprague & Walker, 2005). As a rule, students with five or more disciplinary referrals within a school year are considered at risk and those with 10 or more ODRs are considered to be chronic discipline problems. Irvin, Tobin, Sprague, Sugai, and Vincent (2004) recently recommended the utilization of ODRs as a way of indexing school climate and social ecology as well as measures of school-wide, behavioral intervention effects.

Horner, Sugai, and their associates have developed the *School-Wide Information System* (SWIS) which is a web-based software system for recording, entering, organizing and reporting ODRs (May et al., 2001). SWIS can be used for the following purposes: (1) assisting schools in improving their disciplinary practices, (2) designing school intervention and behavioral support plans for enhancing school climate and discipline, (3) reporting on schooling outcomes to interested agencies, and (4) evaluating individual student ODR profiles against national, district level, and school ODR norms. Printouts and graphic displays of ODR data are produced by the SWIS software for use by consumers (i.e., schools, districts) who are enrolled in the system.

Use of ODRs and the SWIS system is highly recommended as an accurate, cost-efficient means of identifying students who are behaviorally at risk for problems and disorders of an externalizing nature. A limitation of this approach is that it will not detect those students who have internalizing disorders (e.g., depression, phobias, social withdrawal, and peer isolation). Through careful, systematic recording and regular analysis of ODRs, a school is in a position to detect those externalizing students most in need of behavioral supports, services and/or referral to other agencies. Information about SWIS can be obtained by accessing the SWIS website at <http://www.swis.org>. This website provides detailed information about SWIS applications, training, and costs necessary to enroll in the system as a consumer.

Response to intervention (RTI)

RTI is a relatively new approach that can be used in screening for the presence of emotional and behavior disorders, determining eligibility for special education and related services, and adjusting, intensifying, or titrating the “dosage” of an intervention (Gresham, 2002; Gresham, 2005a). RTI is based on the idea of determining whether an adequate or inadequate change in behavioral performance has been achieved because of an intervention. In an RTI approach, decisions regarding adjusting or changing an intervention are made based on how well or how poorly a student responds to an evidence-based intervention that is implemented as intended (i.e., with integrity). RTI assumes that if a student demonstrates an inadequate response to the best interventions available, then that student can and should be eligible for additional assistance including more intense interventions, special assistance, or special education and related services. It should be emphasized that RTI is *not* used exclusively to make special education entitlement decisions, although it may be used for this purpose.

RTI is not a novel concept as it has a rather long history in other fields. The field of medicine for example, provides a useful analogy of how physicians use RTI principles in their everyday practices to treat physical ailments. Physicians assess weight, blood pressure, and heart rate every time they see a patient because these factors are important indicators of general physical health. Moreover, these indicators have scientifically-established benchmarks for typical and atypical functioning. In medicine, these might be considered “general outcome measures” (GOMS) of physical health.

If these GOMS exceed benchmarks, then physicians might recommend that the patient lose weight, exercise, and/or quit smoking. The next time the physician sees the patient, these same health indicators are collected and the physician may place the patient on a specific weight loss diet and exercise regimen and tell him or her again to stop smoking. If subsequent assessments of these same GOMS are taken and if they still show no change, the physician may escalate the intervention by placing the patient on blood pressure medication, refer to a dietitian, and send the patient to a stop smoking clinic. Finally, if these same indicator data are still in the high-risk range, the patient might require heart bypass surgery to reduce mortality risks.

Several key points should be considered in the above example. One, intervention *intensity* is increased only after data indicate that the patient shows an inadequate response to intervention. Two, treatment decisions are based on objective data that are collected *continuously* over time (data-based decision making). Three, decisions about treatment intensity are based on the collection of more and more data as the patient moves through each stage of treatment intensification. This RTI logic can and should be used in a similar fashion to make important intervention decisions for children and youth who are at-risk for emotional and behavioral disorders.

Treatment validity and RTI

In traditional school practices, there is often very little direct relationship between the concerns of referring school staff (e.g., teachers), the assessments that are conducted, and the interventions that are recommended to solve the identified problem(s) (Gresham, 2005a,

b). In short, most school assessments lack *treatment validity*. Treatment validity (sometimes called treatment or instructional utility) refers to the extent to which any assessment procedure contributes to beneficial outcomes for individuals (Cone, 1988; Hayes, Nelson, & Jarrett, 1987). A central feature of treatment validity is that there must be a clear and unambiguous relationship between the assessment data collected and the intervention that is recommended.

For any assessment process to have treatment validity, it must lead to the identification of relevant areas of concern, inform treatment planning, and be useful in evaluating treatment outcomes. Traditionally, assessment procedures in school psychology and education have failed to demonstrate treatment validity because they do not inform instructional or behavioral intervention practices (Cronbach, 1975; Gresham, 2002, 2006; Reschly & Ysseldyke, 2002). The concept of RTI depends largely on the treatment validity of measures used to determine adequate or inadequate treatment response.

RTI and the three-tier model

Most proponents of the RTI approach adopt a multi-tiered model of intervention in which the intensity of delivered services is increased only after the child's skills or target behaviors have not shown an adequate response to intervention (Brown-Chidsey & Steege, 2005; National Association of State Directors of Special Education, 2005; Tilly, Reschly, & Grimes, 1999). An RTI model for a school setting works best within a standard routine system where universal, selected, and indicated intervention approaches are implemented simultaneously and where they are connected to, and coordinated with, each other. The school psychologist is in an ideal position to manage such a system as shown in Fig. 2.

Fig. 2 illustrates a school adaptation of the U.S. Public Health Service model of prevention approaches for accomplishing primary, secondary, and tertiary goals and outcomes that have been adopted by a large number of schools within the past decade (Sugai et al., 2002; Walker et al., 1996). This conceptual scaffold supports the effective delivery of evidence-based, positive behavior support intervention approaches and allows their coordination for purposes of identifying at-risk students and for maximizing the use of school-based resources. Use of this scaffold in combination with positive behavior support interventions, that are evidence-based and well implemented, provides a sensitive context for detecting behaviorally at-risk students who fail to adjust to the schooling process. That is, those students for whom a universal intervention, such as the *Second Step* violence prevention curricular program, is insufficient to solve their problems become candidates for a more intensive selected intervention (e.g., First Step to Success, Walker et al., 1997, 1998) that has sufficient treatment strength to effectively address their problems. It is usually the case that a small subset of the school population (2–3%) may not respond acceptably to such a selected intervention and would move to the third level of the triangle in Fig. 2 where intensive, wraparound case management and family support services may be required.

Problem solving and RTI

RTI interventions are typically developed via a problem solving process occurring between school psychologists and school personnel. Problem solving derives from

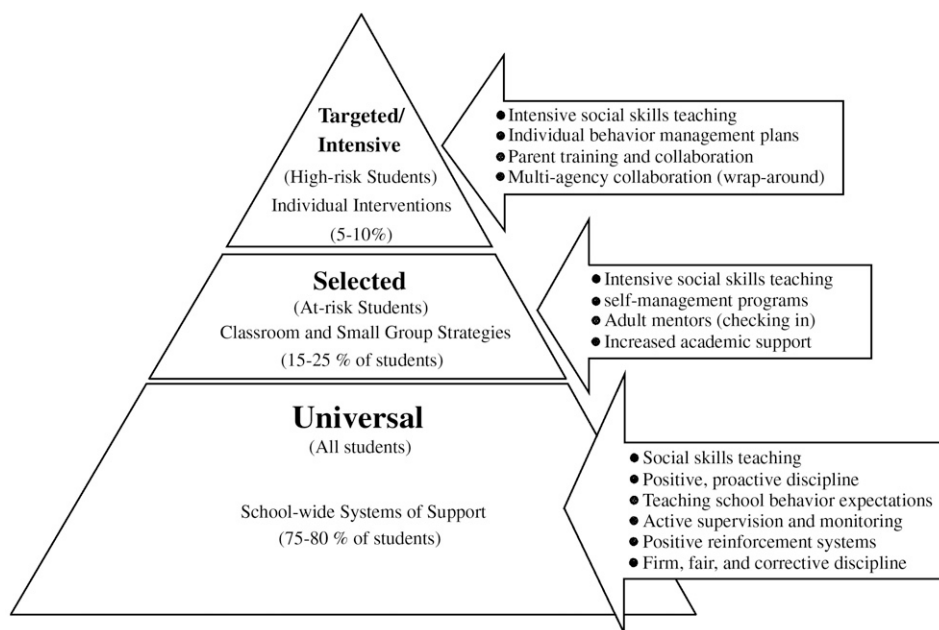


Fig. 2. Three-tiered model of school-wide discipline strategies.

Bergan's (1977) behavioral consultation model which takes place in a sequence of four phases: (1) problem identification, (2) problem analysis, (3) plan implementation, and (4) plan evaluation. The goal in behavioral consultation is to define the problem in clear, unambiguous, and operational terms; to identify environmental conditions related to the referral problem; to design and implement an intervention plan with integrity; and to evaluate the effectiveness of the intervention (Bergan & Kratochwill, 1990).

Problems are defined in a problem-solving approach described above as a discrepancy between current and desired levels of performance and, as such, the larger the discrepancy, the larger the problem. For example, if the current compliance rate to teacher directives in the classroom is 20% and the desired compliance rate is 80%, then the discrepancy between current and desired levels of performance is 60%. This logic is used for any type of referral problem (behavioral or academic) as the first step in the problem-solving process.

This problem-solving process has the potential to improve the quality of decision-making by school personnel in coping more effectively with the increasingly diverse and challenging forms of behavior that students are displaying in today's schools. When integrated with evidence-based approaches in screening and identification as described earlier herein, RTI could enhance schools' ability to establish and maintain positive school climates that will benefit all students.

Considerable research remains to be conducted on RTI decision-making criteria and structures; a host of questions remains to be answered regarding how to make this approach work as envisioned. There are a myriad of factors and conditions that can influence a student's response to a high quality intervention implemented with acceptable treatment

integrity, including characteristics specific to the target student, features of the intervention, and the nature of the context in which the intervention is delivered. The unique and interactive influences of the above factors need to be assessed carefully and factored into the RTI decision-making process.

Considerations in next generation approaches for screening of at-risk students

Screening is typically linked to the concept of preventing problems or developing early intervention strategies to prevent long-term negative outcomes (Levine, Perkins, & Perkins, 2005). Typically prevention programs and procedures focus on reducing the incidence of disorders by targeting risk and protective factors. Risk factors are selected to be modified and protective factors are targeted to be strengthened; however, invoking risk and protective factors in the assessment process is quite challenging to researchers and practitioners (Coie, 1993). Several specific challenges can be identified. For instance, a first challenge with screening programs is that the item content of the assessment instrument(s) used is often based on a specific conceptualization of risk factors or a combined score that assumes that a student with a high endorsement of various combined items is at higher risk. However, most problems of childhood and adolescence are associated with multiple risk factors and, in turn, risk factors are associated with more than one problem. Moreover, it has been documented that individuals can be exposed to risk factors in a variety of ways (Coie et al., 1993).

To deal with these challenges, Levine et al. (2005) has noted that theory is often necessary to guide the assessment of risk and protective factors; in the absence of a solid theoretical framework, it is not always clear which risk and protective factors need to be identified. Levine and associates suggest using developmental theory as an appropriate framework for this purpose in that risk factors for given problems vary at different ages and may be cumulative in nature.

Another challenge with screening efforts designed to identify at-risk students is the multifactorial etiology of particular childhood problems and disorders. Typically, most childhood problems and disorders have multiple causes, and it is often difficult to derive a clear understanding of cause and effect relations in most areas of childhood psychopathology. It is very important that identification of vulnerable students be linked to an appropriate intervention, for example, as in a three-tiered or multi-tiered model of prevention services.

Finally, a key risk-factor concept having strong implications for the screening-identification process is the principle of precipitating versus predisposing factors (Levine et al., 2005). Predisposing factors typically reflect the child's history and experiences while precipitating factors often occur in close temporal proximity to a specific problem or disorder. Stressful events in the child's life are viewed as precipitating factors in this framework. Many screening efforts do not take into account the finer discrimination and potential yield of distinguishing between predisposing versus precipitating factors.

One potential solution to these challenges, which may guide instrument development in future screening efforts, is adoption of a model that uses the metaphor of "accident prevention," which invokes a step-wise, risk reduction approach (Levine et al., 2005). In contrast to a disease model that guides much of screening instrument development, the

accident prevention approach considers that risk may occur sequentially while also taking into account proximal (precipitating) and distal (predisposing) factors. That is, risk factors are conceptualized as a series of steps which then allow various points of intervention along the sequence of events or trajectory of risk exposure. Risk factors would be ordered on this continuum with an eye towards preventing various problems from occurring early on in the sequence of steps. As [Levine et al. \(2005\)](#) note, this accident model focuses on the conditions under which events occur, the factors that lead to those conditions, and a correlated reaction (i.e., intervention). In contrast to a disease model, this approach is guided by an ecological analogy to accident prevention.

This model may also accommodate the inclusion of contextual factors in risk assessment and in the development of prevention programs ([Lochman, 2004](#)). Contextual factors include family, neighborhood, and school conditions or influences that can affect child outcomes. These contextual factors should be considered in screening item content and eventually in prevention programming. While typical screening initiatives have not as yet systematically adopted this accident model, consideration of this conceptual framework may be useful in guiding future research in the development of screening approaches.

Assessing the influence of risk and protective factors on the course of school-related behavior disorders is by no means an easy task. However, solid information in this domain could inform the design of intervention and support systems for seriously at-risk students and also help clarify expectations regarding treatment outcomes for them. [Vance, Bowen, Fernandez, and Thompson \(2002\)](#) recently reported a study in which specific knowledge of risk and protective factors proved to be a better predictor of behavioral outcomes than did behavioral ratings for a sample of youth with severe behavior disorders. We believe the potential value of risk and protective factors in the behavioral screening process is substantial and should be systematically investigated.

Staff training and implementation fidelity considerations in behavioral screening

An important consideration in implementation of any screening program is the fidelity with which the screening process is implemented and the knowledge or skills that professionals bring to this task. As with intervention programs, screening can be conceptualized as an initiative in which there are procedures that need to be implemented with integrity. Fidelity in this regard is similar to that for treatment integrity and depends upon such factors as the availability of manualized materials, staff training, adequate supervision, and quality technical assistance provided as needed. As an example of high fidelity, the authors of the SSBBD have conducted extensive staff development training for school practitioners in its screening procedures and have developed a staff training manual and video for this purpose.

In screening activities, training can be conceptualized in two broad dimensions including (a) procedural considerations in implementation of the process of screening and (b) general training in mental health issues that improves informants' understanding of the purpose and content of the screening process. Generally, there is a paucity of research in this area, but some promising programs have been developed such as the Healthy Schools Project by [Tomb and Hunter \(2004\)](#). This project is a large seven-site initiative in New York City focused on clinics and schools to assist in implementing preventive interventions at

clinic, classroom, and school-wide levels. The unique feature of this project is that participating schools receive teacher training to identify students in need of mental health services. The training is part of the *Teaching Teachers to Identify Program* (TTIP) and is based on the assumption that they do not always have the skills and adequate mental health knowledge to identify and refer students who may need mental health services.

The TTIP is an adaptation of the SSBD and involves a multi-gating system. Specifically, the TTIP provides teachers with information in the following domains: (1) providing information on internalizing and externalizing behaviors, (2) asking teachers to identify students exhibiting these behaviors and ranking them according to degree of manifestation, (3) asking teachers to complete standardized behavioral questionnaires on the top three identified students to ascertain whether each student meets the threshold for potential internalizing or externalizing disorders, and (4) facilitating referrals to school-based services (i.e., mental health clinics, guidance counselors, etc.) for those students meeting criteria for a potential disorder (Tomb & Hunter, 2004).

The TTIP program is coordinated by clinicians who are part of the project and can be administered to groups of 20–30 teachers in approximately 90 min. The authors emphasize the importance of training teachers to identify students who have internalizing disorders, as teachers reported having fewer problems identifying children with externalizing problems (see also Weisz, Hawley, & Doss, 2004). In concert with other research, participating teachers ($N=166$) tended to under-identify internalizing problems.

The authors reported satisfaction data for the TTIP indicating that approximately 78% found it helpful in understanding and identifying internalizing problems, and 58% of teachers reported becoming more sensitive in identifying internalizers. In addition, 44% reported that the TTIP program helped them to identify students they may have otherwise overlooked. Research to date on the TTIP appears promising. It is a highly recommended approach to improving screening outcomes.

Research agenda for screening

Our field is faced with a dilemma of sorts regarding investing in systematic, universal screening procedures applied to the general school population. It is generally regarded (but as yet unproven) that such procedures will more accurately identify students in regular classrooms who have serious mental health needs as reflected in their emotional–behavioral functioning. However, given the current realities of the financial and accountability pressures impinging on school systems, educators do not necessarily wish to become more skilled or efficient in the technology of systematic, universal screening due to the potential for a substantial increase in the numbers of Emotional and Behavioral Disordered (EBD) identified students from its adoption. There is a clear need for further research on how to accurately and efficiently identify behaviorally at-risk students, but this may have relatively limited value for schools and educators. In spite of this reality, there are continuing calls for investments in prevention through early intervention delivered in the context of schooling by federal agencies, task forces, and commissions. It is difficult and often problematic to accomplish this goal without engaging in systematic screening and early identification strategies.

We would argue that before investing in large-scale research efforts to improve the psychometric properties and cost effectiveness of screening instruments, it makes sense to

carefully study the types of assessments and outcomes of screening that would be acceptable and valuable to educators. This initiative could begin by posing the question of, “Screening for what purpose(s)?” Such purposes could include: a) to improve the regular teacher’s accommodation capacity and/or need for technical assistance, b) to identify students who need referral to mental health experts within or outside the school setting, c) to prevent school failure and dropout, d) to enable early intervention, e) to identify students having disorders that qualify them as deserving of the protections of federal and state legislation relating to serving students with disabilities, and so on. Results of such research could be very helpful in better aligning the efforts of researchers and related services professionals with the needs and priorities of educators who are the key gatekeepers in this context.

Another critical line of research could focus on the characteristics and forms of screening approaches that vary in their acceptability to educators who participate in and consume the results of such screening. Our experience suggests that educators are more accepting of generic approaches that are cost efficient, solve a high priority problem, do not require excessive effort, and are central to the core mission of schooling. Systematic screening approaches and procedures that meet these criteria and that have acceptable specificity and sensitivity likely do not currently exist. The screening approach that [Drummond \(1993\)](#) has developed and researched, in our view, comes close to meeting this standard; however, it is limited by its narrow focus on antisocial behavioral characteristics and its failure to address internalizing, mixed, or comorbid disorders of students.

The Response to Intervention (RTI) approach, which is generating considerable interest in the field of School Psychology, has the potential to be more acceptable to school personnel than perhaps any existing screening method since it uses a universal intervention approach as the first level of screening and student evaluation. However, it is not at all clear how judgments about the failure of an intervention (and the corresponding need for a more intensive intervention) for a particular student can be translated into screening and identification protocols for identifying serious emotional and behavioral problems. It may be that RTI and Multiple Gating screening procedures could be integrated in ways that may improve the acceptability, precision, accuracy, and efficiency of the school-based screening process for EBD students. To the authors’ knowledge, such an initiative has not been the focus of systematic research efforts to date.

Having made the argument that there are relatively weak incentives for educators to adopt systematic, universal screening approaches and methods, it may be that the Healthy Schools Project ([Tomb & Hunter, 2004](#)) and the TTIP, as referenced herein, will provide a partial answer to the many obstacles to identifying EBD students that have been described in the professional literature ([Kauffman, 2004](#)). To have a substantive impact, staff training in these and similar programs would need to be initiated on a broad scale. Legislative mandates may be the only way in which such an impact could be achieved. However, such mandates would likely be resisted strongly by the schools’ lobby—particularly from school administrators who are responsible for managing fiscal and political issues within school systems.

Conclusions

In sum, it seems apparent that a broad spectrum of mental health professionals and some educators, especially within higher education settings, regard systematic, universal

screening as a preferred practice that would connect more vulnerable students to needed services, supports, and placements much earlier in their school careers. Burns and Hoagwood (2002) argue that upwards of 20% of the school age student population is in need of treatment for their emotional and behavioral problems. Currently, just under 1% of the school population is certified as eligible to be served by federal legislation mandating special education services. Closing this enormous gap will require that political and fiscal issues will have to be addressed along with research to create viable screening options that are acceptable to educators.

Standardized programs to systemically teach screening procedures and assessment of the long-term impact of regular screening regimens should be important priorities in future research in the field of school psychology. The proactive screening and early identification of students exhibiting at-risk behavior patterns could have many positive outcomes for improved instruction, supports, and intervention. Currently, Kratochwill and his colleagues are developing training programs for both teachers and parents who will participate in universal screening programs using the SSBD. The significance of this work lies in developing increased knowledge pertaining to mental health issues (i.e., internalizing and externalizing problems), facilitating greater understanding of the screening process, and teaching procedural skills within screening implementation efforts. Overall, we believe such initiatives will lead to an increase in the accuracy of identifying students in need of further assessment and access to mental health services.

As described herein, there are a number of existing screening programs that have a strong empirical foundation for their efficacy. School psychologists can take a leading role in choosing appropriate procedures and measures from among this array of accessible resources. Further, they are in an ideal position to train school staff in their appropriate uses and to promote early intervention with at-risk children and youth in order to better prevent mental health problems that threaten school success and normal social development.

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