Handbook of Youth Prevention Science

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Screening for Mental Health and Wellness

Publication details
https://www.routledgehandbooks.com/doi/10.4324/9780203866412.ch4
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Published online on: 31 Mar 2010

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Current School-Based Practices and Emerging Possibilities

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The 20th century was about treating disease. The 21st century is about prevention
—Sir William Castell, Former CEO, GE Healthcare

Research has documented the poor school-related outcomes for children with emotional and behavioral disorders (EBD)(Atkins, Graczyk, Frasier, & Abdul-Adil, 2002, 2003; Franca, Kerr, Reitz, & Lambert, 1990; Rones & Hoagwood, 2000; Wagner Kutash, Duchnowski, & Epstein, 2005). Students with EBD have low overall academic achievement (estimated to be at the 25th percentile in one meta analysis; Reid, Gonzalez, Nordness, Trout, & Epstein, 2004); are suspended or expelled from school at high rates (in secondary school 73% have a history of suspension or expulsion compared to 22% in the general population; Wagner et al., 2005); have high rates of absenteeism (Lane, Carter, Pierson, & Glaeser, 2006); have the highest incidence of contact with the justice system when compared to peers who have either other types of disabilities or no disability; and have low graduation rates (Wagner et al., 2005). As students with EBD transition into adulthood, they are at elevated risk of continued poor psychosocial outcomes (Greenbaum et al., 1996) and many are underemployed or unemployed after high school (Zigmond, 2006). However, the students identified with emotional and behavioral problems comprise less than 1% of the school-age population (Wagner et al., 2005) and, of those identified with EBD, approximately 65% are 12 years old or older (U.S. Department of Education, 2001). This suggests that children are likely under-identified for emotional and behavioral problems and, when they are identified, it is often later in the student's educational career with missed opportunities for early intervention.

The importance of the early identification of youth vulnerable to the complications associated with EBD cannot be overstated. In fact, Goal 4.3 of the President's New Freedom Commission on Mental Health advocates for the screening of ". . . co-occurring mental and substance use disorders and link with integrated treatment strategies" (Hogan, 2003). Striving to implement Goal 4.3 is important because providing prevention and early identification services are humane—suffering is reduced by early intervention when problems are less complex or symptoms are prevented from developing at all (Desrochers, 2006). Nonetheless, despite what appears to be a logical need for early universal mental health screening, efforts to proactively identify these youth for early intervention services have been poor (Duncan, Forness, & Hartsough, 1995; Walker, Nishioka, Zeller, Severson, & Fell, 2000) and only 2% of schools engage in a systematic universal screening practice for mental health services (Romer & McIntosh, 2005).

Fortunately, school mental health providers are trained to use problem-solving strategies to enhance the development of wellness, social, mental health, and life skills of all students, and particularly those with EBD. They often assume leadership roles as part of a school team effort that searches for and provides integrated services for children with mental health challenges (Adelman & Taylor, 2003). They do this while recognizing that positive behavioral and emotional health is associated with academic success (Atkins, Frazier, Adil, & Talbott, 2003; Catalano, Haggerty, Osterle, Fleming, & Hawkins, 2004). Strategies that help children with EBD to cope with immediate mental health symptoms are coupled with a focus on long-term efforts that bolster psychological well-being, which, in turn, result in better school attendance, participation, and school completion (Hazell, 2007).

Although it may at first inspection seem to be an easy task to use universal screening procedures to identify students who are experiencing symptoms of mental health problems, these efforts are complicated by social and legal challenges that claim programs such as Teen Screen (see www.teenscreen.org) are funded by pharmaceutical companies with the intent of increasing the use of psychoactive medication with youth (see, for example, PsychSearch [www.psychsearch.net/teenscreen.html] and the *Rhoads v. Penn-Harris-Madison School Corporation* lawsuit now working its way through the federal courts [www.rutherford.org/articles_db/press_release.asp?article_id=723]). In addition, there is still substantial research to be done to validate the technical adequacy of the instruments and procedures employed in mental health screening procedures. With this as background, this chapter provides a rationale and description of screening and early identification for early intervention, procedural and ethical considerations for screening, an overview of screening instrumentation, and a proposed comprehensive approach integrating positive psychology assessments for mental "health" screening.

Preliminary Considerations

Screening and Integrated Student Supports

When school mental health providers set out to design and implement comprehensive mental health screening there are a number of core issues to consider. First, screening is not an activity that any individual school psychologist can undertake on his or her own. It needs to be incorporated into an integrated student services program (see Adelman & Taylor, 2006). There is limited benefit to mental health screening if there are no structures in place or disorganized service options available.

Second, a number of studies have found that the referral process is complicated by the fact that certain symptoms might be harder to detect than others (Achenbach, McConaughy, & Howell, 1987; Bradshaw et al., 2008). Internalizing and externalizing behaviors are equally important to assess; however, internalizing symptoms might not be as readily apparent to teachers who make many referrals. Reliance on teachers, parents, and other school staff for referrals may overlook students with significant internalizing symptoms. A recent study found that students with externalizing symptoms, such as educational or behavior concerns, receive higher rates of services than children with internalizing symptoms (Bradshaw et al., 2008). This might help explain why boys are over-represented in many special education categories (Oswald, Best, Coutinho, & Nagle, 2003). The detection of both internalizing and externalizing problems, as well as academic difficulties during early elementary school years, is critical for effective prevention of subsequent mental health and educational problems (Bradshaw, Buckley, & Ialongo, 2008) and a systematic

screening process might reduce some biases in the referral process (Kamphaus & Reynolds, 2007).

Establishing Objectives for Screening

One of the first issues to consider is to establish the core purpose of the mental health screening. Is the goal to monitor all students (population status) for program planning or to initiate procedures that lead to the identification of specific high-risk students for more intensive follow-up? From a strict clinical perspective, a primary goal of screening is to gather information via referrals/rating scales and youth self-reports to identify specific students who have enough symptoms of emotional problems that they merit additional assessment and possible intervention. This general strategy follows a public health model (Doll & Cummings, 2008; Kleiver & Cash, 2005; Nastasi, 2004; Short, 2003). With respect to screening for mental health needs among children and adolescents, the primary or universal level is what is usually considered to be "screening" for mental illness (Levitt, Saka, Romanelli, & Hoagwood, 2007). It involves the use of strategies in which an entire population (e.g., school, district, classroom) receives needs assessment with follow-up clinical assessments and services.

Although the rationale for universal mental health screening to identify specific at-risk students is transparent, it is predicated on searching for symptoms of psychopathology and gathering information that is not anonymous. Given these considerations, it is also possible to decide to conduct screening not to identify specific at-risk youth, but to monitor the mental health needs of a population of students via youth self-reports. In fact, this is done nationally with the *Youth Risk Behavior Surveillance Survey* (YRBS) that has asked secondary school students about selected mental health experiences related to suicide ideation and sadness/depression. As shown in Table 4.1, data from the YRBS can be used at the national, state, or local school level to monitor mental health indicators for each successive cohort of entering secondary school students. If prevention and intervention efforts are successful, then each successive cohort should report lower rates of mental health symptoms. As these actual data show, a substantial proportion of high school students report at least one significant period of depression-like symptoms in the previous year. Even without knowing the identity of these students, it still provides evidence and a rationale to support the availability of preventive mental health services and a means to assess progress over time. Although this approach does not identify specific students for intervention, it provides information about students' service needs. This approach requires surveys to be conducted annually with the goal of participation by all students; however, the reader is cautioned that YRBS items do not have the reliability or sensitivity to assess individual differences (see Benner et al., 2002). Even if the core purpose of screening is to identify risk status among students, screening data could be aggregated (with identifying information removed) across classrooms, schools, and districts to provide population-based needs-assessment information. In this way, both needs assessment and individual identification of students could occur.

Implementing a Screening Program

Even after addressing core issues, school mental health providers are still faced with a multitude of issues when implementing mental health screening. A school or district that is interested in early identification needs to address the core issue of what to screen for (Stoep et al., 2005) and consider the pragmatics of screening. This section guides readers through a set of issues to consider when implementing a screening program.

Table 4.1 Percentage of Students by Grade Level and Survey Cohort Year Who Felt So Sad or Hopeless Almost Every Day for Two or More Weeks in a Row That They Stopped Doing Some Usual Activities During the 12 Months Before the Survey from Youth Risk Behavior Surveillance Survey 1999–2007

Survey Year	*Grade 9*	*Grade 11*	*Grade 10*	*Grade 12*
1999	27.4		29.3 (C)	
2001	29.4	28.7 (B)	27.2	27.0 (D)
2003	28.0	28.9	29.7	27.4
2005	29.0	28.8	28.9	26.4
2007	28.2	27.1	28.9	29.4

Note
Survey results from 1999 (Kann et al., 2000; Table 12), 2001 (Grunbaum et al., 2001; Table 12), 2003 (Grunbaum et al., 2003; Table 16), 2005 (Eaton et al., 2006; Table 16), and 2007 (Brener et al., 2007;Table 16) Youth Risk Behavior Surveillance Summaries. Cell A shows the percentage of ninth graders in 1999 who reported being sad and Cell B shows the percentage of students in the same cohort two years later in grade 11 who reported being sad. Cells C and D show the same information for the 1999 cohort of 10th graders who were in the 12th grade when the 2001 YRBS survey was conducted. Efforts to prevent mood symptoms would be reflected in a lower percentage of vertically of ninth graders in each survey year reporting being sad. Successful intervention efforts would be reflected in lower rates (diagonally) as each cohort moves through the school system. This actual YRBS data show that since the tracking of this mental health-related item in 1999, there has been essentially no improvement of students' experiencing of sadness over an extended period of time. These data also show the limitation of conducting surveillance screenings every two years because it is then possible to assess each ninth-grade cohort only twice while they are in high school.

What to Screen For?

With respect to mental health screening Mills et al. (2006) ask, "screening for what?" What mental health problems should be included—depression, suicide, anxiety, or conduct problems? Many screening programs focus their efforts on one mental disorder to the exclusion of others. For example, a screening program that looks solely for symptoms of depression and risk for suicide (e.g., Teen Screen) might miss a student who is having significant difficulties with attention and hyperactivity. However, we do recognize that a school community might take such an approach because of the devastating impacts of teen suicide.

Another approach draws upon research that has identified two broad dimensions of mental health problems—internalizing or overcontrolled symptoms and externalizing or undercontrolled symptoms (Reynolds, 1992). An argument can be made that when screening for psychopathology, then a focus could be on identifying internalizing and externalizing symptoms. However, a recent study by Najman and colleagues (2007) reported that a total problems score, such as the one derived from the Child Behavior Checklist (CBCL; Achenbach &

Edelbrock, 1991) was more predictive of subsequent anxiety and depression problems than the internalizing subscale alone. A related study by Leon and colleagues (1999) lends further evidence to the potential importance of screening for general maladjustment rather than focusing solely on one disorder or a class of disorders and also highlights the need to take comorbidity into account when screening. The authors screened for depression and had the intriguing finding that many clients who were false positives on the screening procedure actually met diagnostic criteria for another mental disorder (Leon et al., 1999). This suggests that overlapping symptomatology might make it more difficult to screen for one particular disorder instead of focusing on screening for general maladjustment and symptomatology. Hence, given the current knowledge, an ideal screener might provide a measure of general maladjustment to be interpreted as a "red flag" for potential emotional and behavioral problems, whether the problems are internalizing or externalizing.

The Pragmatics of Screening

A substantial research base corroborates that schools often function as the de facto mental health system for many children and adolescents (Burns, Costello, Angold, Tweed, et al., 1995; Rones & Hoagwood, 2000). This is primarily due to accessibility, but also to perceived acceptability—children are more likely to seek help when school-based mental health services are available from adults whom they know and with whom they have been able to develop trust (Slade, 2002). Recent surveys report that the majority of schools offer some level of mental health or social service support, with 20% of all students receiving some type of school-supported mental health service (Kutash, Duchnowski, & Lynn, 2006).

Sources of Screening Information. If schools are the primary setting for mental health services for children and adolescents, then a key consideration is who gathers screening information. Within the school setting, teachers are often seen as a key source for information about children's social and emotional functioning. In fact, research has shown that teachers, with a great deal of accuracy, are able to identify children who are at risk of behavioral problems (Taylor et al., 2000). At the preschool, child, and adolescent levels, structured teacher ratings of child behavior have been found to be more reliable than parent ratings and different teachers rate the same child similarly (Reynolds & Kamphaus, 1992). Teachers are particularly adept at assessing problems with attention, a key temperamental variable associated with social and psychopathological outcomes (Molina & Pelham, 2003).

Teacher ratings are one part of mental health screening; however, it is often suggested to collect ratings from multiple informants that include parents (when feasible), and students (when old enough to provide valid responses) to provide a comprehensive picture of a youth's functioning (Kamphaus & Frick, 2002). Even when information from multiple sources is collected, there is often a lack of consistency among raters (Achenbach et al., 1987), suggesting that perhaps raters provide different, yet still valuable, information. However, a screening process that involves multiple informants is likely to be costly and time-consuming. In addition, several studies found that gathering information from a second informant does not significantly increase the amount of explained variance beyond that explained by the first informant (Biederman, Keenan, & Faraone, 1990; Jones et al., 2002; Lochman and the Conduct Problems Prevention Research Group, 1995). In general, there is no current consensus on the number of informants (in a multi-stage screening process) and the type of informants (parent, teacher, child) that should be included in the screening process. In particular, research is needed to evaluate "the value of different informants at various stages of the assessment process" (Johnston & Murray, 2003). In the school context, pragmatics suggests that the

ease of obtaining teacher ratings supports their use with younger students and that self-reports be used with secondary school students because of their awareness of their own psychological experiences.

Planning for Follow-Up Care. In addition to deciding who provides the screening information, there should be a process to provide follow-up assessment and intervention services for those students who screen positive for emotional or behavioral concerns. Screening without adequate and timely follow-up would be unethical and it is important to ensure that adequate resources are available prior to embarking on a screening program. The capacity to be responsive to student needs as identified through a screening process must be predetermined and should directly influence the program chosen; however, simultaneous work to build capacity for future and ongoing mental health needs should be undertaken. Some schools have successfully answered the question of who will provide follow-up services through the utilization of school-based mental health professionals within school-based mental health centers, while others have relied on linkages with community partners (Nagle & Gagnon, 2008).

Initially, follow-up assessments will need to be conducted on all children who screen positively. If screening is to be used at a universal level (screening of all children) then the instrument should minimize the number of false negatives because these children would not have the opportunity to receive further services. However, setting cut scores is a matter of pragmatics because as the number of false negatives is reduced, it conversely increases the number of false positives. To ensure that students do not receive unnecessary services after providing a universal or first-gate assessment, additional assessments will be needed to decrease the number of false positives. A strategy for a second-gate assessment should be predetermined, considering false positives and false negatives, as well.

When Should Screening Occur? Even within a universal approach to screening, a key issue is when the screening should occur. The most intensive option would be to collect screening information on every child at multiple time periods during the year. A child would first be screened upon entry into the new school or grade level. If teachers or other significant adults complete screening information, it will be important to ensure that the teachers have adequate time—at least one month—to get to know a student and his or her emotional and behavioral condition. If a child receives a positive screen and additional information leads the assessor to believe that there are no significant concerns, then the screening could be conducted again throughout the year to monitor the student's symptoms. The child could be screened again prior to completing the school year to ensure that he or she was ready to move on to the next educational phase.

An alternative, and perhaps more reasonable, approach would be to conduct screening at critical time periods. Stoep and colleagues (2005), for example, implemented the Developmental Pathways Screening Program (DPSP) in which students are targeted at the critical institutional and developmental transition period from elementary to middle school. The authors indicated that their program identified students at a time when the risk of emotional distress was high, yet possibly below the diagnostic threshold, and with sufficient time to prevent adverse outcomes (Stoep et al., 2005). Other critical time periods such as at entry to school (Spielberger, Haywood, Schuerman, & Richman, 2004) and prior to exit from school have been suggested. Still other programs have gathered information from all second- through fifth-grade students (Catron & Weiss, 1994) and arguments have been made that it might not be useful to gather information on internalizing symptoms of anxiety and depression until adolescence (Najman et al., 2007).

Another approach to screening for emotional and behavioral problems would be to screen for these difficulties when other problems arise. For example, a school could implement a

screening program in which all children that are referred to a student study/success/support team (SST), regardless of the reason for referral, would be screened. This could help make a differential diagnosis if the school-related problem were, in part, due to symptoms of emotional or behavioral distress. Perhaps the referred student is experiencing significant symptoms of inattention or anxiety that could be impacting his or her ability to perform in the reading classroom.

However, it should be noted that if a student is already displaying significant signs of emotional or behavioral distress then a screening tool would not be warranted or needed and additional, more comprehensive, information should be obtained. Completing a short, time-efficient screener when a child is referred for a SST meeting, has excessive absences, or has been frequently sent to the office (signifying some problems within the classroom) might provide additional information that the team can use in forming appropriate, individualized interventions.

Screening when critical behaviors occur is not as comprehensive as a universal screening approach and can lead to some children not being appropriately identified as needing additional services. However, this systematic process might allow for the identification and treatment of certain children that would not be identified through more traditional means of assessment. In addition, this approach, while confidential, is not anonymous and allows for rapid follow-up. The screening approach chosen should align with the target population and goals of interest (Stoep, 2005). Therefore, knowledge of the context and characteristics of the population to be screened is helpful in implementing an approach that will be most beneficial.

Mental Health Screening Instruments

One initial decision that will surely impact other implementation decisions will be to determine which instrument to use. In this section of the chapter, we describe a set of criteria for evaluating instruments followed by a review of several instruments that have strong research support. Screener instruments provide practical benefits (Reise, Waller, & Comrey, 2000; Smith, McCarthy, & Anderson, 2000), but the challenge is to use measures with acceptable psychometric properties that are capable of predicting a wide range of behavioral and emotional outcomes. Glover and Albers (2007) delineated three characteristics of screening instruments that should be evaluated prior to use. First, the screening instrument must be appropriate for the intended use considering developmental and contextual variables and the ability of the instrument to be supportive and complementary of service delivery models. Second, screening instruments must demonstrate technical adequacy including acceptable levels of sensitivity (the proportion of individuals with the disorder who are correctly identified by the instrument as having the disorder; true positives) and specificity (the proportion of individuals without the disorder who are correctly identified as not having the disorder; true negatives). The positive predictive value (proportion of students correctly identified as at risk out of all students identified as at risk on the screener) and the negative predictive value (proportion of students correctly identified as not at risk out of all of the students identified as not at risk on the screener) of an instrument should also be examined. Third, the usability or practicality of the screening instrument should be evaluated. This includes evaluating the instrument on factors such as cost, time to administer and score, requirements for interpretation and data management, and whether it is an efficient use of school resources (Caldarella et al., 2008; Glover & Albers, 2007).

The reader will be well served to further investigate how to evaluate screening instruments as they frequently change and the choice of instrument should depend on a variety of factors

Table 4.2 Content and Psychometric Properties of Omnibus Youth Mental Health Screening Instruments

Instruments/Forms	*Age Range*	*Number of Items and Scale Content*	*Reliability & Validity Sensitivity & Specificity*	*Research*
Strengths and Difficulties Questionnaire (SDQ)				
Youth Parent Teacher	11–17 years 3–4 years; 4–10 years; 11–17 years 3–4 years; 4–10 years; 11–17 years	25 for all versions • Hyperactivity-Inattention • Emotional Symptoms • Conduct Problems • Peer Problems • Prosocial Activities • Total Difficulties	Internal consistency: • Total Difficulties (.83) • Peer Problems (.46) • Remaining four subscales (.63–.77) Validity: Parent-reported service contact or special education for their child's emotional/behavioral problems revealed significant differences ($p = .0001$) between youth identified by the SDQ compared with youth who were not identified by the SDQ: Sensitivity: .77; Specificity: .85	Bourdon et al. (2005) Goodman (2001) Goodman & Scott (1999) Hysing et al. (2007) Mellor (2004) Shochet et al. (2006)
BASC-2 Behavioral and Emotional Screening System (BESS)				
Student	Grades 3–12	30	Split-half reliability: .90–.96 Test-retest reliability: .80–.91	Kamphaus & Reynolds (2007) Kamphaus et al. (2007)
Parent	Preschool: 3–5 years Child/Adolescent: Grades K–12	30 for both versions	Inter-rater reliability: .71–.83 Sensitivity: .44–.82 Specificity: .90–.97	DiStefano & Kamphaus (2007)
Teacher	Preschool: 3–5 years Child/Adolescent: Grades K–12	Preschool: 27 Child/Adolescent: 25		
Pediatric Symptom Checklist (PSC)				
Youth Parent	11 years and older 4–16 years	35 35	Test-retest reliability, 4 months: .77 Internal consistency: .89–.91 Sensitivity: .94 Specificity: .88	Jellinek et al. (1999) Murphy et al. (1989) Pagano et al. (2000) Simonian & Tarnowski (2001) Stoppelbeing et al. (2005)

including the purpose of screening (for a more comprehensive review see Levitt, Saka, Romanelli, & Hoagwood, 2007). In our view, mental health screeners should be time-efficient, not so comprehensive that they would be better suited for clinical or diagnostic assessment, able to be used universally, sufficiently researched and validated, and capable of identifying an array of potential problems or strengths. With these parameters in mind, we identified the following instruments as potentially useful for school-based mental health screening: *Strengths and Difficulties Questionnaire* (SDQ); *BASC-2 Behavioral and Emotional Screening System* (BESS); *Pediatric Symptom Checklist* (PSC); and the *Systematic Screening for Behavior Disorders* (SSBD). The following section provides information on each screening instrument and process. See Table 4.2 for additional information.

Strengths and Difficulties Questionnaire (SDQ)

Overview. The SDQ (Goodman, 1997, 1999, 2001) is a brief, 25-item behavioral screening tool for youth 4–16 years old (more information is available at www.sdqinfo.com) that can be completed in approximately five minutes. The youth self-report, parent, and teacher versions of the SDQ ask about positive and negative attributes of the youth. There are three levels of the parent and teacher versions: 3- and 4-year-olds; 4- to 10-year-olds; and 11- to 17-year-olds. The youth self-report is for 11- to 17-year-olds.

The items and subscales are based on the Diagnostic and Statistical Manual of Mental Disorders (4th ed., DSM-IV; American Psychiatric Association, 1994) and were selected using factor analysis procedures (Goodman, 2001). Five subscales cover emotional symptoms, conduct problems, hyperactivity/inattention, peer relationship problems, and prosocial behavior. Each subscale has five items. Respondents rate items using a three-point scale ranging from 0 (not at all) to 2 (very much, all the time). The total difficulties score is generated by summing the items from all of the subscales except the prosocial behavior subscale. The total difficulties score, which ranges from 0 to 40, is then classified as normal, borderline, or abnormal based on the SDQ normative scoring bands. For example, the total difficulties scores on the parent version are: normal (0–13), borderline (14–16), and abnormal (17–40).

Psychometric Properties. Normative data were obtained from the parents of 10,367 children between the ages of 4 and 17 participating in the 2001 National Health Interview Survey (Bourdon, Goodman, Rae, Simpson, & Koretz, 2005). Cronbach's Alpha coefficients are good for the total difficulties (.83), impairment scores (.80), and its four subscales (.63–.77); but poor (.46) for the peer problems subscale. To examine the validity of the SDQ, service contact or use for a mental health reason was used as the criteria. Bourdon et al. (2005) found significant differences ($p < .0001$) between youth identified by the SDQ with service contact/use compared with youth who were not identified by the SDQ.

Goodman and Scott (1999) examined the correlation of scores between the SDQ and the Child Behavior Checklist (CBCL; Achenbach & Edelbrock, 1983), which were completed by the mothers of 132 youth ages 4 to 7. One-half of the sample was recruited from dental clinics, a low psychiatric-risk population. The other half was recruited from child mental health clinics, a high psychiatric-risk population. The results showed that scores from the SDQ and CBCL subscales were highly correlated (.59–.87) and were equally able to discriminate between children recruited from high-risk and low-risk samples, a desirable outcome because the SDQ has more than 100 fewer items than the CBCL.

Hysing, Elgen, Gillberg, Lie, and Lundervold (2007) evaluated the sensitivity and specificity of the SDQ in detecting emotional and behavioral problems among children with chronic illness (CI) in Norway. Parents and teachers of 7,007 children attending second to fourth grades

(7 to 9 years old) in all public, private, and special schools in Bergen, Norway, completed the SDQ and a question about chronic illness. To calculate sensitivity and specificity, "abnormal" cases were counted as positive and "borderline" and "normal" cases on the SDQ were counted as negative. In the sample of children with CI the sensitivity was 77.3% and the specificity was 85.1%.

Mellor (2004) investigated the reliability of younger children's responses on the self-report version of the SDQ. Of the child participants, 359 were between ages 7 and 11 (younger children) and 558 were ages 11–17 (older children). Their parents and teachers also completed the SDQ. Results found that older children's self-reports were significantly more consistent with those of their parents compared to those of younger children. Many screening instruments may not include youth self-reports for younger children due to the lower reliability rates for this age group compared to older children. Another possible explanation for these results might be that parents' accuracy may vary when they report on the behaviors of younger versus older children (Mellor, 2004).

BASC-2 Behavioral and Emotional Screening System (BESS)

Overview. The Behavioral and Emotional Screening System (BESS) is an instrument used to identify behavioral and emotional strengths and weaknesses in youth ranging from preschool through high school (Kamphaus & Reynolds, 2007). It assesses a wide range of behavioral problems and strengths, such as internalizing and externalizing problems, school problems, and adaptive skills.

There are three parallel forms with differing levels as shown in Table 4.2. The number of items ranges from 25 through 30, and each form can be completed in approximately five minutes or less. The majority of the BESS items were taken from the pool of items created during the development of the Behavior Assessment System for Children-2 (BASC-2; Reynolds & Kamphaus, 2004) Teacher Rating Scales (TRS), Parent Rating Scales (PRS), and Self-Report of Personality (SRP). There is one new item for the student form, three new items for the teacher (preschool) form, three new items for the teacher (child/adolescent) form, eight new items for the parent (preschool) form, and four new items for the parent (child/adolescent) form. Respondents are given four rating options—never, sometimes, often, or almost always for each item. The BESS may be scored by hand or with computer software. The report includes raw scores, *T*-scores and percentiles based on a normative sample that closely matches recent U.S. Census population characteristics. The sum of the items generates a total *T*-score with high scores reflecting more problems (Kamphaus & Reynolds, 2007). The scoring rubric, or risk level, for behavioral and emotional problems is as follows: (a) 20–60 suggests a "normal" level of risk; (b) 61–70 suggests an "elevated" level of risk; and (c) 71 or higher suggests an "extremely elevated" level of risk.

Psychometric Properties. The BESS was developed using a normative sampling group of 12,350 teacher, parent, and student forms, collected from 233 cities in 40 states (Kamphaus & Reynolds, 2007). The split-half reliability estimates range from .90 to .96 across forms and ages. Test-retest reliability estimates are high for all forms and levels, ranging from .80 to .91. Inter-rater reliability estimates range from .71 to .83. The concurrent validity of the BESS was examined by co-administering the items with other social-emotional measures: Achenbach System of Empirically Based Assessment (ASEBA, .71–.77), Conners' Rating Scales (CRS, .51–.78), Vineland Adaptive Behavior Scales (Vineland, .32–.69), Children's Depression Inventory (CDI, .51), and the Revised Children's Manifest Anxiety Scale (RCMAS, .55).

The risk level classification cut scores were developed to maximize sensitivity and specificity. Results suggest that sensitivity, specificity, PPV and NPV were generally high. The sensitivity and PPV ranged from .30 to .82 and were highest when using the Total Score to predict the Behavioral Symptoms Index. Sensitivity and PPV values were lowest for predicting Internalizing Problems, especially on the parent and teacher forms. However, for the student form, sensitivity and PPV values were higher (.55 and .66, respectively) on Internalizing Problems, suggesting that the Total Score on the student form might be particularly useful for identifying internalizing problems among youth.

Pediatric Symptom Checklist (PSC)

Overview. The PSC (Jellinek et al., 1999; Little, Murphy, Jellinek, Bishop, & Arnett, 1994) is a screening instrument used to identify cognitive, emotional, and behavioral problems in children (Georgetown University, 2002). There are two versions of the PSC—the parent-completed version (PSC) and the youth self-report version (Y-PSC). The Y-PSC can be administered to youth ages 11 and older. Both versions have 35 items that are rated on a three-point frequency scale—never, sometimes, or often. The total score is obtained by summing the score for each of the items. For children ages four and five, a total score of 24 or higher on the PSC is used to designate possible psychological impairment. For children ages 6 to 16, a score of 28 or higher indicates possible psychological impairment. The cut score for the Y-PSC is a total score of 30 or higher.

Psychometric Properties. Pagano, Cassidy, Little, Murphy, and Jellinek (2000) examined the concurrent validity of the PSC and Y-PSC among 173 third- through eighth-grade students and their parents. When compared with teacher ratings of attention and behavior problems, the Y-PSC demonstrated a sensitivity of 94% and a specificity of 88%. Y-PSC scores and the Children's Depression Inventory (CDI) scores found that children with positive scores on the Y-PSC were five times more likely to score in the clinical range on the CDI compared to children with negative scores on the Y-PSC. The Y-PSC also correlated significantly with teacher and parent measures of child dysfunction. In another study, Simonian and Tarnowski (2001) examined the correlation of scores between the PSC and the Child Behavior Checklist (CBCL). One hundred eighty-seven mothers of children ages 6 to 12 completed the parent-version of the PSC and the CBCL. The PSC total score was significantly correlated with the CBCL total behavior problem *T*-score and the externalizing and internalizing *T*-scores ($r = .78$, $r = .76$, and $r = .71$, respectively). Another validity study examined used a sample of 166 seventh- and eighth-grade students from a suburban, public middle school (Murphy, Jellinek, & Milinsky, 1989). The students completed the Y-PSC and 140 of the 166 students' parents completed the PSC. The level of agreement between the PSC parent version and Y-PSC was 84%. More than half of the students who screened positive on the Y-PSC also screened positive on the PSC parent version. Results also suggest that students with a positive screen on the PSC parent version were more likely to have failed at least one course than the PSC negative students.

The reliability and validity of the PSC was also examined in a population of chronically ill children (Stoppelbein et al., 2005). Parents of 404 children ages 6 to 17 diagnosed with insulin-dependent diabetes mellitus or sickle cell disease completed the PSC. Internal consistency for the PSC was high ($\alpha = .89$) and test-retest reliability across four months was found to be acceptable ($r = .77$) for the diabetes sample.

The prevalence of psychosocial problems identified by the PSC parent version has been shown to be consistent across different samples (Jellinek et al., 1999). In a nationally representative sample of 21,065 parents of 4- to 15-year-old children, the prevalence of

psychosocial dysfunction in school-aged and preschool-aged children (13% and 10%, respectively) was virtually identical to rates of impairment reported in previous studies of smaller sample sizes (12–14% among school-aged children and 7–14% among preschool-aged children). Overall, the PSC meets criteria as a useful screener as it is brief to administer, evaluates a broad range of functioning, and has acceptable sensitivity, specificity, and predictive validity.

Systematic Screening for Behavior Disorders (SSBD)

Overview. Whereas the SDQ, BESS, and PSC are screening *instruments*, the SSBD is a general screening *process*. It identifies students in the primary grades (K–6) who may be at risk for developing externalizing and internalizing behavior disorders (U.S. Department of Education, 1995). The SSBD uses a multiple gating procedure with progressively more precise and specific screening instruments to identify youth who need help. The three stages in the SSBD screening process use teacher nominations, ratings, and observations.

First, general education teachers rank order students in their class for both externalizing and internalizing behaviors. Teachers consider all students in their classrooms, nominate 10 students in each category and rank them according to the extent to which they exhibit characteristics of externalizing and internalizing behaviors. The three top-ranked students in each category are included in the stage two screening process. In the second stage, teachers complete the Critical Events Index (33 items) and Combined Frequency Index (11 items for adaptive behaviors; 12 items for maladaptive behaviors) for the three top-ranked students identified in stage one. Examples of items on the Critical Events Index include being cruel to animals or being physically aggressive with others. The Combined Frequency Index asks about adaptive behaviors such as following rules and also asks about maladaptive behaviors such as "manipulates other children and/or the situation to get his or her way."

During the third stage, students who exceed the normative cut-points on the Critical Events Index and Combined Frequency Index are systematically observed in the school setting. The observational measures used in stage three are academic engaged time, recorded in the classroom, and positive social behavior, recorded on the playground. Academic engaged time is presented as the percentage of observed time during two 20-minute classroom observations. Likewise, the positive social behavior measure is generated through two 20-minute playground observations. The observer records the level, quality, and distribution of the student's playground behavior during the observations. Positive social behavior is presented as the percentage of intervals in which the target behavior is displayed and the overall rates of positive and negative social behavior. The normative cutoff points for stage three observations are used to determine next steps (e.g., referral to the school's student study team; possible disability classification).

In regards to the time-efficiency of this process, the stage one nomination and ranking of students requires approximately 45 minutes. Stage two, when teachers complete surveys for the top three internalizers and externalizers, also requires approximately 45 minutes. In 1.5 hours or less, the SSBD results in the nomination of six students in each class school-wide who warrant additional evaluation and possible interventions. At stage three, however, the student observations total 80 minutes, which can be quite costly.

Psychometric Properties. A national normative sample of 4,500 cases on stage two measures (i.e., Critical Events Index and Combined Frequency Index) was used to develop the psychometric properties of the SSBD (Severson, Walker, Hope-Doolittle, Kratochwill, & Gresham,

2007). The inter-rater reliability coefficients for identifying students with externalizing behaviors were between .89 and .94. The inter-rater reliability coefficients for identifying students with internalizing behaviors were between .73 and .88. In addition, the test-retest reliability coefficients were .76 for externalizers and .74 for internalizers. These strong correlations support the SSBD as an objective method for identifying children who may need additional attention.

Walker and Severson (1994) found that during a trial testing, 90% of a school's students were correctly identified as internalizing, externalizing, or neither. Of the remaining 10%, only 1% were identified as having internalizing problems when they actually had externalizing problems, 5% had problems but were not identified (false negatives), and 4% did not have problems but were identified (false positives). This level of accuracy is comparable to other clinical instruments. For example, the Achenbach Teacher's Report Form (Achenbach & Rescorla, 2001) correctly identified 85% of youth referred for mental health services, with 7% false negatives and 8% false positives. An independent evaluation of the SSBD in middle and junior high school provided further evidence for the reliability and validity of the SSBD ratings (Calderella et al., 2008).

Emerging Trends in Mental Health Screening

Although traditional approaches to screening have taken psychopathology, mental illness foci, there is recognition that ultimately the objective is to gather information that promotes mental health. Kazdin (1993), for example, conceptualizes mental health in two broad domains—(a) the absence of dysfunction in psychological, emotional, behavioral, and social spheres; and (b) optimal functioning in psychological and social domains. This raises the question, "Is the absence of psychopathology the ultimate goal?" When considering implementing a screening program, would it be worthwhile to screen for well-being? Is it possible to forego the search for pathology and focus screening resources on measures of thriving and optimal development? This question is potentially important considering research suggesting that preventive interventions should consider the many risk, protective, and other environmental factors that deter negative outcomes for children experiencing mental health symptoms (Tomb & Hunter, 2004).

Positive Psychology as a Possible Framework for Mental "Health" Screening

"Positive psychology is the scientific study of what goes right in life, from birth to death and all stops in between . . . and that takes seriously those things in life that make life most worth living" (Peterson, 2006, p. 4). The three pillars of positive psychology are the study of positive emotion, the study of positive traits, specifically an individual's strengths and virtues, and the study of positive institutions and communities (Seligman, 2002). These definitions provide a clear understanding of how determining individual emotions and traits, paired with environmental support, can promote improved individual functioning.

Proponents of this approach demonstrate how a focus on positive psychology constructs not only integrates prevention efforts, it also builds upon individual strengths in promoting concepts such as subjective well-being (Diener, Suh, Lucas, & Smith, 1999), resilience (Glantz & Johnson, 1999), developmental assets (Scales & Leffert, 1999), and wellness (Cowen, 1991), which are aspirational developmental outcomes for *all* youths. Broadening a strengths-based approach to understanding youths' functioning allows for a comprehensive understanding of psychological well-being. Capitalizing on one's strengths and fostering positive attributes

(e.g., gratitude and optimism) may buffer against negative outcomes and the development of psychological maladies (Masten, 2001; Seligman, 1995). An assessment of youths' functioning reveals (a) the limits of the current medical model in mental health; (b) a primary focus on positive outcomes; and (c) the belief that building upon these positive outcomes may, in the long run, be the most efficacious way of reducing psychological dysfunction (Cowen & Kilmer, 2002).

Strengths-Based Assessment

Within the field of psychology, traditional assessment practices have focused primarily on the presence or absence of psychopathology. By determining levels of dysfunction that contribute to disorders such as depression, anxiety, or hyperactivity, individuals are provided a mental illness diagnosis. Clear definitions and measurement of the science of mental illness are provided in the current model and have helped to diminish the incidence of negative sequelae of mental disorders. However, this approach has failed to include an understanding of mental health or mental wellness, and has not incorporated strengths when evaluating an individual's level of functioning. A different but complementary approach integrates both and shifts the focus slightly to prevent mental disorders by monitoring and supporting thriving and psychological well-being.

This model integrates a strengths-based approach to assessment. As current research has discovered that human strengths act as a buffer against mental illness (Keyes & Lopez, 2002), identifying individual assets is a key factor in resiliency. As a result, promising research supports the integration of a dual-factor model, combining traditional assessment measures with strengths-based approaches. This practice provides a complementary perspective on children, assessing both mental wellness and mental illness. A thorough assessment requires the promotion of positive adaptive functioning in addition to the prevention and treatment of dysfunction (Kazdin, 1993).

There is increasing support for movement away from deficit-focused service delivery toward more positive, ecological models that capitalize on the strengths of children. Psychologists do not have to pick one approach or the other, but are encouraged to gradually infuse positive psychology into current models of psychopathology and treatment (Lampropoulos, 2001) in order to develop an integrative psychology incorporating both wellness and psychopathological functioning, which more accurately reflects the full range of human functioning (Huebner, 2004; Joseph & Linley, 2006; Seligman & Csikszentmihalyi, 2000). Integrating strength-based assessments and measures of positive functioning into traditional models of assessing for psychopathology promotes a dual-factor model of individual functioning. This provides a potentially beneficial framework when conducting mental health screening in schools. Not only are students screened for at-risk behaviors, but strengths are also identified as potentially mediating factors in the area of mental illness.

Although assessments of subjective well-being (SWB) and quality of life (QOL) began with adults, an assessment of these constructs among children and youth has been a recent advancement in the field. The measurement of subjective well-being in adults suggests that its facets and dimensions in youth may be more complex than current research indicates (Keyes, in press). The emphasis on assessment of children is on identifying at least minimal levels of positive subjective well-being and adaptive functioning against which to juxtapose symptom patterns. This research is in its early stages but, even within the field of school psychology, assessing children with emotional disabilities calls for assessments that respect the strengths of the child and their social contexts (Doll & Cummings, 2008).

Consideration of a Dual-Factor Model of Mental Health

Select studies have begun to conceptualize a dual-factor model of assessing not only for mental illness, but also for mental wellness. A study conducted by Suldo and Shaffer (2008), for example, examined a dual-factor model of mental health that pairs assessments of positive indicators of wellness with negative indicators of illness. They compared and evaluated low and high levels of psychopathology in conjunction with low and high levels of subjective well-being (SWB, see Figure 4.1). Students were organized into four categories: *vulnerable* (low on both factors), *symptomatic but content* (high on both factors), *troubled* (low SWB and high psychopathology), and *complete mental health* (high SWB and low psychopathology). This conceptualization argues that positive and negative indicators of mental health are not the opposite ends of the same continuum, but rather that assessment of positive and negative indicators provide separate but complementary perspectives on individual functioning. Only evaluating psychopathology can lead to an over-estimation or under-estimation of a student's functioning in important areas of life (Suldo & Shaffer, 2008).

Utilizing this type of strategy in screening methodologies could provide a more comprehensive picture of individual functioning and potentially reduce false positives and false negatives in the screening process. An ongoing investigation of the relations between positive psychology constructs (e.g., hope, gratitude, and grit) and clinical measures of psychological adjustment problems (e.g., BASC-2, Achenbach scales, etc.) could lead to a well-rounded assessment of individual functioning. Along these lines, one model for integrating positive psychology measures and traditional assessment practices is the integration of assessing quality of life (QOL) with traditional health assessments. Frisch (2006) recommends a model that assesses for symptoms of disorder or disease, combined with overall positive psychology indicators of well-being, quality of life, or life satisfaction.

A similar critical component of positive psychology assessment is subjective well-being (SWB). SWB is described as an individual's affective and cognitive evaluation of his or her life (Diener, 2000). SWB can be measured through an understanding of children's perceived quality of life (PQOL). PQOL refers to "a person's subjective evaluation of the degree to which his or her most important needs, goals, and wishes have been fulfilled" (Frisch, 2000, p. 220). In the use of the PQOL, a positive appraisal style (global PQOL) buffers against negative experiences and emotions and behaviors associated with psychopathological characteristics (Huebner, Suldo, Smith, & McKnight, 2004). As such, the PQOL attempts to identify and promote strengths that encourage positive adaptive functioning and simultaneously prevent or

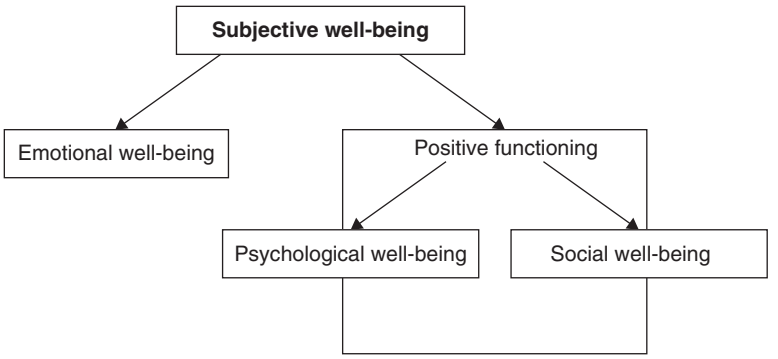

Figure 4.1 Overview of Subjective Well-Being.

ameliorate psychopathological conditions. Current research indicates that very high life satisfaction is associated with positive psychosocial functioning (Suldo & Huebner, 2004).

A Complementary, Comprehensive Approach to Screening

Research on the assessment of life satisfaction with children and adolescents is in the early stages, but the literature provides promising evidence that assessing levels of life satisfaction among children can provide predictive information around mental illness and mental wellness (Huebner, 2004). Specifically, studies have demonstrated that decreasing life satisfaction often precedes the occurrence of psychopathology (Lewinsohn, Redner, & Seeley, 1991); at the same time, life satisfaction measures different constructs than indices of psychopathology (Huebner, 2004). A conjoint factor analysis of Huebner's Life Satisfaction Scale and the Youth Self Report (short form) of the Child Behavior Checklist (Achenbach & Edlebrock, 1991) found three distinct and independent constructs of internalizing disorders, externalizing disorders, and global life satisfaction (McKnight, Huebner, & Suldo, 2002). As such, it is suggested that screening assessment may be enhanced when employing measures of both domains. Research further indicates that a person can be dissatisfied with his or her life without showing psychopathological symptoms, and conversely that psychopathology could occur with moderate to high life satisfaction (Greenspoon & Saklofski, 2001; Suldo & Shaffer, 2008), showing that the relation between life dissatisfaction and clinical diagnosis is not concordant (Huebner, 2004). This emerging research points to the importance of a well-rounded assessment of an individual's functioning including measures of mental illness and mental wellness. Well-being is not merely the absence of impairment; rather it refers to the presence of personal and interpersonal strengths that promote optimal functioning (Kazdin, 1993).

Even further, recent research has established a robust link between access to external social resources and lower levels of psychopathology and mental health problems in adolescents (Arthur, Hawkins, Pollard, Catalano, & Baglioni, Jr., 2002; Robert, Hoge, Andrews, & Leschied, 2006). Among the social resources that have been singled out as being particularly important is school connectedness (McNeely, Nonnemaker, & Blum, 2002). The importance of this construct for adolescents' positive mental health was emphasized in a series of studies using the National Longitudinal Study of Adolescent Health, beginning with the influential work by Resnick et al. (1997). In this study, it was found that students who reported higher levels of positive social attachment with their schools also had fewer psychopathology symptoms and engaged in fewer high-risk behaviors such as substance use and aggression. Subsequently, numerous other studies have replicated and extended this association (e.g., Anderman, 2002; Bonny, Britto, Klostermann, Hornung, & Slap, 2000; Klem & Connell, 2004).

Most of this research, however, has been cross-sectional and correlational. In a study examining a school-based mental health program in Australia, Shochet, Dadds, Ham, and Montague (2006) administered the *Psychological Sense of School Membership Scale* (PSSM; Goodenow, 1993) as a measure of school connectedness in tandem with the Strengths and Difficulties Questionnaire (SDQ) and clinical scales of depression and anxiety to a sample of more than 2,000 students ages 12–14. Because the surveys were administered twice over a 12-month period, it offers one of the few opportunities to assess the relative predictive power of a traditional symptom-focused screening instrument (SDQ) and a strength-focused instrument (the PSSM).

The results of the Shochet et al. (2006) study provide evidence that strength-focused screeners have potential to identify future mental health functioning just as well as symptom-focused screeners. Using hierarchical linear modeling to control for Time 1 mental health symptom

severity and for possible school-level influences, the authors found some surprising relations. For example, the correlations between PSSM and the Children's Depression Inventory (–.62) and the SDQ (–.60) were significant and substantial. Even this cross-sectional finding suggested that scores on the PSSM are strongly and negatively associated with reported depression symptoms. Even more importantly, this association remained highly significant for the Time 2 CDI and SDQ scores. In fact, the correlations between the Time 1 PSSM and the Time 2 CDI and SDQ (both –.49) were nearly the same as for the Time 1–Time 2 correlations for the CDI (.53) and SDQ (.52). An intriguing finding was that the Time 1–Time 2 PSSM–CDI correlation (–.49) was larger than the SDQ–CDI correlation (.42). In other words, for this sample of adolescents, the PSSM school connectedness measure predicted mental health symptoms one year later as well as the SDQ. In a similar study using a sample of 10- to 14-year-old students from Texas, Loukas, Suzuki, and Horton (2006) reported smaller but significant one-year correletions between the Add Health School Connectedness Scale and measures of depression (–.29) and conduct problems (–.33).

Although the Shochet et al. (2006) study supports efforts to integrate wellness content in mental health screening instruments, additional research is needed to identify which aspects of well-being and protective factors will be the most critical to include. For example, in another longitudinal study, Bond et al. (2007) administered measures of school and social connectedness to students in grade 8 and examined how they predicted mental health adjustment in grade 10. This study replicated the importance of positive school connectedness in grade 8 being associated with lower scores on a depression scale in grade 10. Interestingly, however, they found that the combination of positive school connectedness and positive social connectedness was by far the best predictor of positive mental health status with equally poorer mental health associated with poor school connectedness, social connectedness, or both.

These are remarkable findings that merit further research and replication. They inspire creative thinking about the most effective strategies to screen for and monitor the mental health and well-being of youth. Although it can be challenging to motivate schools and communities to screen for depression and other mental health problems, it may be easier to convince them to ask students about well-being-focused constructs such as school connectedness. Not only may this diminish any inappropriate stigma that may be associated with mental health problems, it also focuses on matters that the schools may be better able and motivated to address. When schools screen for mental health symptoms, this might encourage perceptions that the screening primarily leads to mental health referrals and services. If a school inquires about the attachment or connectedness that its students have with the school, the locus of responsibility to respond to students in need gravitates more clearly to the school and its community. For example, Shochet et al. (2006) found that for both males and females differences of just one point on the Time 1 PSSM scale were associated with two fewer points on the Time 2 CDI score. Knowing this outcome, schools could screen for students with low PSSM scores, for example, and implement strategies to increase school connectedness. Such efforts that produce even modest improvement of connectedness could meaningfully decrease depression symptoms one year later. Although this research is in its early stages, it offers an example of how future mental health screening may be enhanced by well-being measures that address factors schools may be better prepared to address.

In addition to providing a more comprehensive view of a student's functioning, collecting information from a strengths-based perspective might be more palatable to the children, teachers, and parents involved in the screening process. For example, consider how parents who are hesitant to provide consent might respond to "screening for mental health problems"

as opposed to "screening for happiness, hope, and wellness." The potential importance of collecting information from a strengths-based perspective, including information on adaptive functioning, might be particularly useful when screening for early identification *and* early intervention. Can the same goal of early identification for early intervention be accomplished focusing solely on the presence or absence of positive indicators of well-being, utilizing a strength-based approach? This question remains, but surely should be considered.

Discussion and Concluding Comments

Although it makes intuitive sense to identify mental health problems so they can be treated early, it is important to consider whether early identification is even possible. School mental health providers need to carefully scrutinize emerging research that informs best practices in mental health screening because previous studies have produced divergent findings about the accuracy of screening procedures.

Some studies support the efficacy of school-based mental health screening. Jones and colleagues (2002), for example, used a brief conduct problems screener with 463 children in kindergarten and found that, six years later, they were able to strongly predict which children had EBD problems and were involved in mental health, special education, or juvenile justice services. In a longitudinal study, Kamphaus et al. (2007) used an abbreviated version of the Behavior Assessment System for Children Teacher Rating Scale—Child Version (BASC TRS-C; Reynolds & Kamphaus, 1992) with a sample of 206 children. They found that the screener version of the BASC TRS-C (similar to the BESS) was able to predict a substantial range of outcomes one year later including conduct problems, social skills problems, depression, and academic achievement scores. A similar longitudinal study by DiStefano and Kamphaus (2007) found evidence of concurrent and predictive validity for a screener of the preschool version, the BASC TRS-P (Reynolds & Kamphaus, 1992). Specifically, the abbreviated BASC TRS-P was able to predict social readiness for the school environment, disciplinary infractions, academic problems, and counseling referrals in addition to other behavioral and emotional indicators.

Further evidence for screening comes from a study conducted by Lane et al. (2007) in which 528 students were placed in low-, moderate-, and high-risk groups based on results of the Student Risk Screening Scale (SRSS; Drummond, 1994). Results indicated that students could be differentiated on behavioral outcomes, such as office discipline referrals and in-school suspensions, with the higher-risk group having more discipline referrals and suspensions. An additional study by Briggs-Gowan and Carter (2008) found that screening with a standardized tool in early childhood (12 to 36 months of age) identified the majority of children who exhibit significant emotional/behavioral problems in elementary school (kindergarten and grade 1) as measured by the Child Behavior Checklist and Teacher Report Form (Achenbach & Rescorla, 2001). In combination, these studies provide evidence that early identification is possible although additional research is warranted.

The need for additional research is emphasized by other studies suggesting that school-based screening does not have predictive validity. For example, the results of a study investigating the ability of a mental health screener, the Diagnostic Interview Schedule for Children Predictive Scales 8 (DPS-8) to predict mental health diagnoses as identified by the National Institute of Mental Health Diagnostic Interview Schedule for Children-IV (NIMH-DISC-IV) indicated that the screener was unable to accurately predict diagnosis (Roberts, Stuart, & Lam, 2008). Specifically, with a Canadian sample of 153 high school students, the DPS-8 was only able to correctly identify 53.1% of the students with a psychiatric diagnosis. Furthermore,

Najman and colleagues (2007) screened for risk of later problems with depression and anxiety and they were only able to detect a small proportion of the later cases with significant mental health problems. What may be the case is that youth cope with short-term life challenges that produce significant symptoms, but that over time these symptoms abate and/or the youth are able to cope with them because of internal assets and external social resources. The authors, in fact, challenged the "existing movement encouraging the detection and treatment of those with symptoms of mental illness in early childhood" (Najman et al., 2007, p. 694).

We saved this discussion for the end of the chapter because we feel that interest in providing humane care for children mandates that every effort be taken to watch diligently for any signs of emotional distress. Whichever approach to screening discussed in this chapter a school implements, school mental health providers can help to ensure that the latest research evidence is available to modify screening practices so that information is interpreted properly so

Table 4.3 Mental Health Screening Implementation Considerations

1. *Establish a planning and implementation team*
   - □ Identify key stakeholders to assist in development and decision-making
     - ○ Staff, community health professional, parents, students
     - ○ Consider integrating with pre-existing teams (e.g., school safety team)
   - □ Assign roles for each member of the team
2. *Determine rationale and goals for screening*
   - □ What is the purpose of the screening? What is the expected outcome?
   - □ What is the school and community's comfort level with undertaking this task?
   - □ What will be done with the information obtained? What services are in place to address concerns?
   - □ Is the focus on population-based needs assessment and/or screening to identify individual youth?
   - □ Is the focus on assessing for mental health problems, well-being, or both?
   - □ In what ways will screening benefit students, staff, school, and/or the community?
3. *Identify resources*
   - □ Identify data, resources, and services currently available at the school and in the community
   - □ Design screening program to fit current capacity while working to build capacity for future needs
   - □ Develop budget for screening
   - □ Evaluate and make determinations about screening instrumentation based on intended use, technical adequacy, and usability
   - □ Identify additional data, resources, and services that will be needed
4. *Work out logistics*
   - □ Develop a timeline for screening, considering the following:
     - ○ Who will be involved in data collection (teacher, parent, student forms)?
     - ○ How often and when will screening occur each year?
     - ○ How will parent consent be obtained if identifying individual students?
     - ○ What are the pragmatic time and space considerations for actual data collection?
     - ○ How will students, staff, parents, and community be educated about screening prior to implementation?
5. *Follow-up*
   - □ How will the data be analyzed and summarized in a way that facilitates open communication?
   - □ Determine how information will be shared with students, families, staff, and community
   - □ Link screening outcomes to services and interventions
   - □ Critically evaluate screening process and monitor effectiveness of services provided

as to respect the rights of parents and their children. Recognizing the need for school mental health providers to provide meaningful consultation and leadership for school-based screening, Table 4.3 provides a list of the essential considerations and steps for schools to consider prior to, and while, implementing a screening program for mental health and wellness. While advances in the field of early identification have been made possible through recent improvements in early identification technologies (Levitt et al., 2007), there is not yet a consensus on optimal screening procedures and/or instrumentation to be used. Additional research and development on screening instruments is being sought and longitudinal investigations are currently underway to provide additional reliability and validity evidence for screening instruments such as the BESS (United States Department of Education, Institute for Education Sciences, Grant # R32B060033B, awarded to Kamphaus and DiStefano). Although it is possible that more questions were raised than answered and that empirical validation awaits for some screening procedures, it would be premature to dismiss screening due to preliminary discrepant results and unknown answers.

There is enough known now about early identification and early intervention that it is not recommended to wait to take action until systems are further refined. School mental health providers are in a unique position to take a leadership role to start the process of implementing a screening program that is appropriate for use in their schools and communities. Schools can begin to use the data that are already available to them (e.g., results of the periodic *Youth Risk Behavior Surveillance Survey*) and/or collect additional screening data to begin to monitor the mental health status of their students. These data could begin to inform service delivery and intervention approaches while building the capacity to serve students with unmet mental health needs. Service systems can continue to work together to provide more coordinated systems of care that are responsive to family and child needs. Early intervention and prevention efforts with documented evidence can continue to be implemented to children identified as in need. While there is still much to be done, it is hoped that the concepts and guidelines discussed here will stimulate conversations between school mental health providers, administrators, teachers, and parents about how to best accomplish screening for mental health and wellness. It is also hoped that, following these conversations, action will occur to undertake the vital task of watching for and purposefully responding to the many unmet mental health needs of children and adolescents.

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