INTERVENTIONS

for Academic and Behavior Problems II:

Preventive and Remedial Approaches

Edited by

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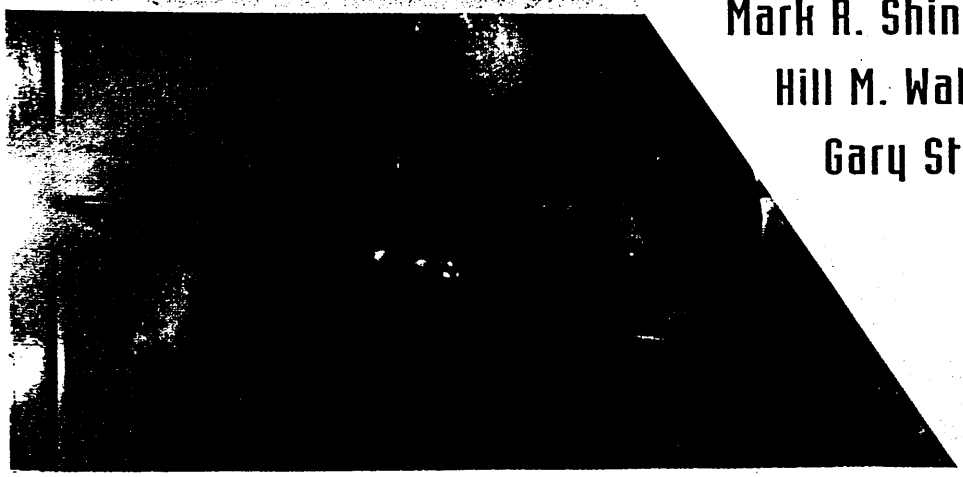

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CHAPTER 7

Early Screening and Intervention to Prevent the Development of Aggressive, Destructive Behavior Patterns Among At-Risk Children

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INTRODUCTION

Professionals in the field of school psychology are well aware of the positive impact of early intervention and prevention efforts in successfully reducing later, disruptive behavior disorders among at-risk children and youth. Current NASP efforts to provide preventive interventions to young children on a universal basis are being fueled by evidence that points to the critical period of *school entry* and the need to ensure that every child has a good school beginning *(NASP 1999–2000 Annual Report)*. School bonding, engagement, attachment and success can function as powerful protective factors against later destructive outcomes; they operate much like a vaccine or inoculation in this regard. Early intervention directed toward ensuring a successful start to a child's school career is a proven method for developing this protective influence (see Hawkins, Catalano, Kosterman, Abbott, & Hill, 1999).

Well-conducted, longitudinal research suggests that much of problem behavior in adolescence has its origins in early childhood (Kazdin, 1987; Loeber & Farrington, 1998; Patterson, Reid, & Dishion, 1992; see also Eddy, Reid, & Curry, this volume). The preschool-age period (i.e., from 3 to 5 years of age) provides an opportunity to impact vulnerable children's later lives (a) by addressing risk factors, and their associated behavioral correlates, early on in the child's development; and (b) by developing the academic and social readiness skills that contribute to subsequent school success and social effectiveness. This early developmental period can be viewed as providing a pivotal window in which to intervene for preventing later potential problems, such as violence, substance abuse, educational failure, adolescent delinquency, and adult criminal involvement. Collaborative early intervention approaches, mounted within home, school, and community contexts, are perhaps one of the best hopes we have for preventing and remediating antisocial behavior patterns before they become chronic and intractable (Zigler, Taussig, & Black, 1992).

The broad and growing awareness of the importance of early intervention to the developmental prevention of later problems has changed the landscape of policy and practice regarding children's mental health (Burns & Goldman, 1998; Hoagwood, 2000). In addition, changes in the federal law that mandates and regulates delivery of services to children eligible for special education, under the aegis of Individuals with Disabilities Education Act, Amendments of 1997 (IDEA '97), have made it less difficult for professionals to accomplish early screening, identification, and intervention for children who are at risk for problems in their learning and behavioral potentials. The school psychologist can play a pivotal role in assisting vulnerable children and their families to access services, supports, and proven practices in this critically important area.

With the enactment of the Public Law (PL) 99-457 amendments to IDEA, two major changes occurred in the field of special education. First, all children needing special education and related services, from birth to 21 years, were now ruled eligible for federal and state funding for special education and related services. Second, PL 99-457 further defined and delineated the early identification and assessment requirements associated with the mandate to initiate a comprehensive child-find system. "The child find system must include the policies and procedures that the State will follow to ensure that ... *an effective method is developed and implemented to determine* which children are receiving needed services and *which children are not receiving those services*" (Federal Register, v54(119), p. 26319, 303.321, emphasis added). Each state has now begun to implement child-find systems for young children needing special education and related services—albeit often with limited tools with which to complete this child-find task.

Advances in the development of early screening and intervention approaches over the past decade have made it possible to serve the growing at-risk child populations with much greater cost effectiveness and efficiency (see Greenberg, Domitrovich, & Bumbarger, 1999; Hawkins et al., 1999; Merrell, 1999; Sprague & Walker, 2000; Walker, Colvin, & Ramsey, 1995). However, the vast majority of early childhood education programs, schools, and districts have not yet taken full advantage of these innovations and advances.

The focus of this chapter is twofold: (a) we review the literature on traditional, as well as relatively new, approaches to screening and identification and describe our own work in this regard using multiple gating approaches to assessment; and (b) we discuss some elements of effective early intervention for behaviorally at-risk children and highlight the *First Step to Success* home and school early intervention program for addressing aggressive, disruptive and bullying behavior at the point of school entry (see Walker et al., 1997, 1998). The chapter concludes with some recommendations regarding needed future developments in policy and practice(s) in serving the growing population of young children with challenging behaviors with which school professionals must now cope.

APPROACHES TO SCREENING AND IDENTIFICATION

It can be argued that the current way of identifying students with behavioral needs is failing. From the available data on current practices, it appears that both systematic

identification procedures and consistency of outcomes are lacking. As a result, Behavior Disorder (BD) students are identified too late in their school careers, at which point interventions are not only less successful but also come at increasing cost. The main outcome of these practices is "too little, too late."

Central to the current student identification "process," for lack of a better term, is teacher nomination and referral. Teachers' nomination and referral of at-risk students have been the subject of considerable debate and controversy in the professional literature over the years (Gerber & Semmel, 1984; Gresham, Lane, MacMillan, & Bocian, 1999; Walker, Severson, & Feil, 1995). On the one hand, some argue that a teacher's referral of a student is primarily motivated by the desire to be rid of troublesome, difficult-to-teach students so as to create more easily managed, homogeneous classrooms. A counter argument is that teachers are driven by their good faith interest in securing assistance for students whose problems and needs exceed teachers' skill levels and accommodation capacities. We believe teacher referral practices are governed more by the latter consideration than the former. However, there are a number of problems associated with an exclusive reliance upon teacher nomination and referral of students who need specialized services including differences in behavioral tolerances among teachers, underreferral that leads to lack of service, and insensitivity to internalizing problems.

If teacher nominations are the *only* school-based avenue or approach available for meeting the needs of students with BD, then the idiosyncratic behavioral standards, tolerance levels, and judgmental biases of referring teachers are free to operate in an unconstrained fashion across classrooms and school settings. Long-established, empirical evidence shows that regular teachers vary tremendously on these dimensions (Brophy, 1986; Brophy & Evertson, 1981; Gerber & Semmel, 1984; Walker, 1986). Thus, students with identical behavioral characteristics and needs are likely to have very different probabilities of referral across individual teachers and classrooms because of this teacher variability. On the surface of it, this appears to be patently unfair to those vulnerable children and youth (i.e., internalizers) who may have serious and unmet mental health needs or problems, but who are assigned to a teacher who is unlikely to refer them. The underidentification and referral of behaviorally at-risk students continues to plague our prevention-intervention efforts and is a critical, unmet problem; yet school administrators go to what appear to be extraordinary lengths to prevent the overreferral of students with serious behavior disorders.

In traditional practice, the classroom teacher has been the primary gatekeeper who determines whether a given child is referred for evaluation and thus is afforded the possibility of accessing specialized services for learning and/or behavioral-emotional problems. Lloyd, Kauffman, Landrum, and Roe (1991) analyzed school records to investigate the context surrounding the teacher referral process. They found that regular teachers were involved in over 75% of all referrals and that students, in general, were far more likely to be referred for academic than behavioral problems. In their sample, two thirds of all school referrals occurred in the K–3 grade range and 69% involved boys. They found also that the referral rate peaked around Grade 2.

While academic problems and reading difficulties ranked first among the primary reasons for referral, social, emotional, and behavioral adjustment problems ranked a distant seventh on the list of teacher referral reasons. If this study were to be repeated today, it is possible that the results might differ somewhat, given the heightened sensitivity that many teachers now have, owing to the school shooting tragedies of the past decade, to the problems of troubled youth. In our own work with preschool teachers, staff development sessions on working with challenging forms of behavior is often the most requested.

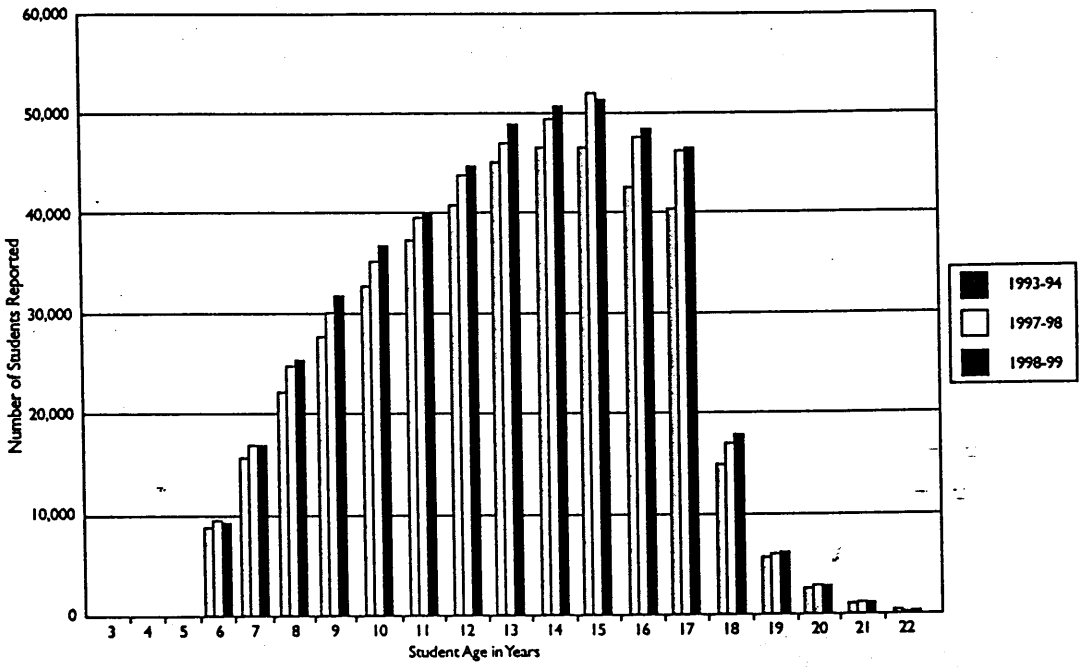
The referral practices documented by Lloyd and his colleagues reveal teachers' legitimate concerns about the academic difficulties that many students experience in their early school careers and that hold the potential to impair their school engagement and achievement. It is laudable that regular teachers hold this level of sensitivity to the academic status of young children; however, the story is often different for students who are behaviorally at risk, and who may be equally likely to fail school. Unless a given student (a) behaves in a bizarre, atypical, or troubling fashion; (b) exhibits a behavior pattern that conflicts with teacher values (lying, stealing, cheating); and/or (c) pressures the teacher's ability to manage the classroom by being aggressive, disruptive, or defiant, teachers are generally less likely to refer and perhaps more inclined to hope that the normalizing processes of schooling will solve any emergent social-behavioral adjustment problems. The evidence shows that children who bring a well-developed pattern of challenging behavior with them to the schooling process are more likely to grow *into* rather than out of it (Lynam, 1996; Moffitt,1994). Effectively addressing the needs of such children requires mounting a coordinated intervention, as early as possible in an at-risk child's life and school career, that involves parents and caregivers, the target child, teachers, and peers (Reid, 1993). In the absence of systematic and early identification, this becomes very difficult to do.

Walker and his colleagues (Walker, Nishioka, Zeller, Severson, & Feil, 2000) recently analyzed the referral and certification patterns for emotionally disturbed students in grades K–12 based upon the Annual Reports to Congress on progress in implementing IDEA during the 1990s. Figure 1 illustrates the replicating pattern of referral frequency by grade level across the decade for Emotionally Disturbed (ED) students.

In stark contrast to academic referrals by regular teachers, the corresponding behavioral referral and certification rates for the IDEA category of emotional disturbance tend to peak at about age 15, when students are in the tenth grade (see Figure 1). This practice severely reduces opportunities to divert behaviorally at-risk children from a destructive path early on in their school careers. Follow-up studies of students served by IDEA in different disability categories indicate that ED students fare very poorly in their postschooling adjustments and quality of life (Wagner, 1989). Early intervention that systematically addresses both school- and nonschool-based risk factors, along with their behavioral correlates, is one of the best strategies available for diverting behaviorally at-risk children and youth from such a destructive life path (Kashani, Jones, Bumby, & Thomas, 1998).

FIGURE 1

Students With Emotional Disturbance Served by Age (1993–94, 1997–98, and 1998–99 School Years)



Note

Walker, H. M., Nishioka, V. M., Zeller, R., Severson, H. H., & Feil, E.G. (2000). Causal factors and potential solutions for the persistent underidentification of students having emotional or behavioral disorders in the context of schooling. *Assessment for Effective Intervention, 2*(1), 29-39. The figure is on page 31. Reprinted with permission.

While Hoagwood & Erwin (1997) and Angold (2000) indicate that approximately 20% and 22%, respectively, of the school-age population is in need of treatment for mental health problems, IDEA currently serves slightly less than 1% annually of the K-12 student population as ED. This figure is unlikely to increase substantively until school-based barriers to early identification (e.g., cost, stigma, perceived teacher incompetence) are addressed and resolved. Given the enduring nature of these obstacles, other avenues will need to be found and developed in the short run in order to address the chasm that now exists between available services and the mental health needs of the preschool and K–12 student population (Walker et al., 2000).

In the following section, we review some traditional and more recent approaches to the early screening and identification of behaviorally at-risk children and youth in the context of schooling. We also examine many of their upsides, as well as downsides, and discuss their likely cost effectiveness and practicality. Following this section, we describe our work in the multiple-gating screening and assessment of behaviorally at-risk students within the context of schooling. The screening and identification strate-

gies reviewed below include Likert teacher ratings, critical behavioral events, archival school records, and direct behavioral observations.

Teacher Use of Likert Rating Scales

Teacher ratings of student behavior, based on Likert scales, have been a popular albeit unsystematic approach in the evaluation of students referred for social, emotional, and behavioral problems (see Merrell, 1999, 2001). Such Likert scales typically ask the rater to assess students' behavior along 3, 5, or 7 point dimensions of problem frequency or severity. Hundreds of such scales are in use and evaluations of many of these can be accessed through the *Buros Mental Measurements Yearbook,* which annually reviews newly developed scales. *The Child Behavior Checklist* (Achenbach, 1991) has become the rating scale standard for measuring child and youth psychopathology and is, by far, the most widely used instrument for this purpose. Merrell (1999) has contributed a comprehensive analysis of assessment instruments for use in social, emotional, and behavioral domains.

In addition to their unsystematic use, critics of teacher rating instruments point to their global and relatively crude assessment properties (e.g., "How many fidgets are there in pretty much?"). Others argue that teacher ratings pale in sensitivity in comparison to more direct measures such as in vivo behavioral observations. In spite of these criticisms, teacher ratings continue to be a widely used and important source of information in child screening, identification, and evaluation processes. These ratings have the advantage of defining and pinpointing the behavioral content of a student's perceived adjustment problems and can be standardized so as to enable valid social comparisons referenced to normative age and gender scores. Merrell (2001) has pointed out that Likert behavioral ratings have a number of additional advantages. They (a) are relatively inexpensive; (b) provide essential information on low-frequency behavioral events of potential importance; (c) are relatively objective and reliable, especially when compared to interview and projective assessment methods; (d) can assess individuals who are unable to contribute self-reports; (e) take into account the many observations and judgments of child behavior made by social agents within natural settings over the long term; and (f) reflect the judgments of expert social informants who are familiar with the student's behavioral characteristics (i.e., parents, teachers, peers).

Drummond (1993) has developed an intriguing matrix system, based on Likert teacher ratings, to screen entire classrooms of students for their risk status in relation to antisocial behavior patterns. *Drummond's Student Risk Screening Scale* (SRSS) is a cost efficient procedure for quickly screening whole classrooms. A matrix format is used that has seven behavioral descriptors across the top of the rating form and students' names down the left side. The classroom teacher assigns every student a Likert rating, ranging from 0 = never to 3 = frequently, for each of these seven items of the SSRS: (1) stealing; (2) lying, cheating, sneaking; (3) behavior problems; (4) peer rejection; (5) low academic achievement; (6) negative attitude; and (7) aggressive behavior. Teachers compare each student against all others in the classroom as they rate each item. The SRSS is brief, research based, easily understood, valid, and cost efficient.

The major advantages of the SRSS are that (a) all students are systematically screened and evaluated; (b) it accomplishes universal screening; and (c) normative social comparisons are facilitated by requiring the teacher to evaluate *all* students on each item at the same time rather than rating individual students on a series of items on a case-by-case basis. The SRSS thus affords every student an equal chance to be evaluated in relation to the seven SRSS items. A matrix system of this type is also ideally suited for the classwide assessment and pre-post evaluation of instruction for all students in a series of social skills. A more complete description of the SRSS and its potential applications is provided in Walker, Colvin, and Ramsey (1995). Information about the SRSS can be obtained by contacting the author of the system.

Critical Behavioral Events

Critical behavioral events refer to episodes having great intensity and social impact; they include but are not limited to assault, fire setting, self-injury, exposing oneself, stealing, cheating, bullying, and so on. The importance of critical events derives from their severity and their potential destructiveness to the individual. The impact of critical events is not dependent upon their frequency of occurrence but rather determined by the fact that they occur *at all*. These are rare occurrences in the behavioral repertoires of typically developing children and youth but are not infrequent in the lives of some behaviorally at-risk individuals.

Gresham, MacMillan, and Bocian (1996) conducted a study of the *Critical Events Index* (CEI) in their use of the SSBD screening procedure within a larger study of the social-affective status of at-risk students. The CEI was used to identify three groups of students from an elementary-aged student sample based upon the groups' total number of critical events: (a) high risk (n = 30), (b) moderate risk (n = 55), and (c) low risk (n = 30). These groups were then contrasted on a series of cognitive/achievement, social competence, externalizing behavior, and school history variables as derived from searches of archival school records of individual students. Multivariate and univariate analysis procedures showed that the three at-risk groups were differentiated primarily on social competence and externalizing behavioral measures. However, a series of cross-validated, stepwise discriminant function analyses, contrasting the high, and low, risk groups only, and using combinations of social competence, externalizing, internalizing, and school history variables, correctly identified over 85% of the high-risk group and 78% of the low-risk group. These authors recommend inclusion of critical events measures within multimethod assessments of at-risk, behavioral status and they view these events as "vital signs" or indicators of childhood psychopathology.

Blechman and Hile (in press) make the following observations regarding critical events:

1. Student involvement in critical events provides a bias-free screen for the detection of at-risk students in the general or universal student population; and

2. Systematic documentation of all critical events provides the most effective and least expensive method of screening for at-risk students.

They note further that a reliance upon readily available information from student records within screening efforts reduces costs, increases feasibility, and avoids extraordinarily adverse consequences to students. Blechman and Hile (in press) define critical events in their work as including school and criminal offenses, threats of violence or suicide, suicide attempts, and caregiver requests for assistance with behavior management and argue that these events offer a useful and inexpensive predictor of future and more serious critical events. The work of these authors reflects an increasing trend toward using critical behavioral events in screening practices, as either rated by knowledgeable informants or culled from existing archival records.

Archival School Records

If the early preschool detection of behavior problems is not possible, school records can provide an additional valuable source of screening information. Archival school records that accumulate as a natural part of the schooling process provide a rich and inexpensive information source regarding a range of school adjustment problems and also provide a record of the manner in which schools try to cope with such problems. Because these records build naturally as an ordinary part of the schooling process, they are relatively unobtrusive and far less reactive than typically recorded assessments (e.g., teacher ratings, in vivo behavioral observations, sociometric measures).

Walker and his colleagues have developed the *School Archival Records Search (SARS)* procedure (see Walker, Block-Pedego, Todis, & Severson, 1991) to accomplish the coding, analysis, and aggregation of archival school records. SARS provides for the systematic coding of 11 archival variables, which can then be analyzed individually or aggregated into domain scores that provide profiles of student status in three areas of school adjustment: *disruption, needs assistance, and low achievement.* The individual SARS variables that are coded include the following: number of different schools attended, days absent, low achievement, grades retained, academic/behavioral referrals, current Individualized Educational Program (IEP), nonregular classroom placement, Title I, referrals out of school, negative narrative comments, and school discipline referrals. In the context of schooling, archival school records are the closest proxy we have for police contacts and juvenile records that are used in evaluating delinquency prevention programs and in validating measures that purport to predict later delinquent acts.

Disciplinary referrals of students to the front office who are involved in behavioral episodes, as reflected in archival school records, have emerged as a very useful measure for assessing overall school status and for identifying student groups and individuals who are in need of behavioral supports and intervention (see Sugai, Sprague, Horner, & Walker, 2000; Walker, Stieber, Ramsey, & O'Neill, 1990). Sugai, Horner, and their colleagues have conducted extensive research on this topic in the past 5 years. Most

recently, Sugai et al. (2000) reported normative data profiles on disciplinary referrals involving a sample of 11 elementary schools and 9 middle/junior high schools. These elementary schools averaged 0.5 disciplinary referrals per student per school year. At the middle/junior high school level, this level of disciplinary referrals was a *very* common occurrence. In the Sugai et al. study, the elementary schools averaged 566 students enrolled and 283 disciplinary referrals within a school year; the middle/junior high schools averaged 635 students and 1,535 disciplinary referrals within a school year.

These authors also analyzed some of the patterns that existed within this pool of disciplinary referrals. Based on this analysis, they argue that these patterns can guide the direction and focus of intervention approaches for addressing chronic behavior problems within the school setting (i.e., targeting the whole school, small groups, and/or individual students). For example, at the elementary level, Sugai et al. (2000) found that the top 5% of students with the most discipline referrals also accounted for 59% of total disciplinary referrals within the school; at the middle/junior high level, the top 5% accounted for 40% of all discipline referrals. These figures closely parallel outcomes for juvenile crime where 6–8% of juveniles typically account for 60 to 65% of all delinquent acts (Loeber & Farrington, 1998). According to Sugai et al., elementary-aged students with 5 or more disciplinary referrals within a school year are considered to be behaviorally at risk; those with 10 or more such referrals are considered to be chronic discipline problems who may be severely at risk for both in-school and out-of-school destructive outcomes.

Recording and utilizing disciplinary referrals to identify at-risk students and to guide intervention applications requires the computerization of school records. Horner and his associates have developed the *School Wide Information System (SWIS)* procedure, which is a Web-based, computer application for entering, organizing, and reporting office discipline referrals found within schools (May et al., 2001). SWIS computerizes discipline referrals and is a valuable tool for use by teachers and school administrators in collecting and analyzing discipline-related information. One of the advantages of the SWIS procedure is that it systematizes and standardizes the process of documenting, recording and reporting on disciplinary referrals.

Figure 2, on page 152, contains the *SWIS Office Referral Form,* which is completed for each disciplinary referral made by a teacher to the school office. This referral form documents each disciplinary episode for which a front office referral is initiated by the teacher. The SWIS referral form describes the location, specific problem behavior, possible motivation(s) for the behavior, the resulting administrative decision, and other persons who were involved in the incident. Parents are asked to sign and date the referral form to indicate that they have knowledge of the incident, the referral, and its disposition.

SWIS is an important advance in the computerization of archival school records that allows individual schools to profile themselves in relation to disciplinary practices and their resulting effects. It can be used also as a measure of certain aspects of school reform efforts, as a measure of the school's climate, as a pre-post measure of school-wide interventions, and as a vehicle for guiding and targeting allocation of interven-

FIGURE 2

SWIS Office Discipline Referral Form

SWIS OFFICE DISCIPLINE REFERRAL FORM

Student(s) _____ Referring Staff _____ Grade Level ____ Date ____ Time ____

Location

- Classroom
- Cafeteria
- Bus Loading zone
- Other _____
- Playground
- Bathroom/restroom
- Parking Lot
- Commons/common area
- Gym
- On bus
- Hallway/breezeway
- Library
- Special event/assembly/field trip

Problem Behaviors (check the most intrusive)

- Minor/warning
- Tardy
- Tobacco
- Bomb threat
- Abusive lang./inapprop. lang.
- Skip class/truancy
- Alcohol/drugs
- Arson
- Fighting/physical aggression
- Forgery/theft
- Combustibles
- Weapons
- Defiance/disrespect/insubordination/non-compliant
- Dress code violation
- Vandalism
- Other _____
- Harassment/tease/taunt
- Lying/cheating
- Property damage
- Disruption

Possible Motivation

- Obtain peer attention
- Avoid tasks/activities
- Don't know
- Obtain adult attention
- Avoid peer(s)
- Other _____
- Obtain items/activities
- Avoid adult(s)

Others Involved

- None
- Peers
- Staff
- Teacher
- Substitute
- Unknown
- Other _____

Administrative Decision

- Time in office
- Detention
- Saturday School
- In-school suspension
- Loss of privilege
- Parent contact
- Individualized instruction
- Out-of-school suspension
- Conference with student
- Other _____

Comments:

Follow Up Comments:

Note

The SWIS Office Discipline Referral Form is reprinted with permission from Robert Horner, Director, Educational and Community Supports, College of Education, University of Oregon.

tion resources to small groups and individuals. It is also recommended as a schoolwide, behavioral screening device to identify those students who are experiencing serious to chronic school adjustment problems.

Behavioral Observations

Behavioral observations recorded in natural settings (e.g., homes, classrooms, playgrounds, hallways) remain the preferred assessment method of most behavior analysts for assessing the behavior problems of students. In typical school usage, the teacher referral process requires that a school psychologist, or other related-services professional, directly observe the target student in a setting or context in which the problem behavior occurs (i.e., the referral setting). The main purpose of this observation is to confirm or disconfirm the accuracy and validity of the teacher referral. A wide range of coding systems and recording procedures are used for this purpose. However, the vast majority of them do not have adequate technical data or information to support their use(s). In addition, most of these codes lack local, state, or national norms that are appropriate for making social comparisons among students.

Teacher referrals are often based upon discrete behavioral events of high intensity or salience (e.g., insubordination, teacher defiance) that may be missed within the narrow window of *time* and *occasions* sampling that most such observations involve. Naturalistic behavioral observations are also vulnerable to observer bias and expectancy effects that can be induced by the observer's prior knowledge of the case. Further, direct observations are time-consuming and labor intensive in that they usually require considerable planning and careful monitoring if they are conducted effectively (see Merrell, 2001).

In spite of these downsides, naturalistic behavioral observations remain popular among school professionals and they do have an important role to play in the screening-identification process *if* they are incorporated into a comprehensive assessment process that involves other, less expensive measures (e.g., teacher nominations, rankings, ratings, archival records searches, etc.). We do not recommend their use in isolation; but rather that they be an important component of a multiagent, multimethod, and multisetting assessment approach to the screening-identification process (Merrell, 1999).

Herein, we have briefly reviewed a number of commonly used, and several relatively new, approaches to the screening and identification of students having behavior problems in the school setting. The choice of which approach or method to use depends upon an array of factors specific to the decision that has to be made and the amount of professional time, skills, and resources available. Many differing assessment options exist within these general approaches that have excellent psychometrics and whose power, efficacy, and precision have been greatly enhanced by recent advances in assessment and computer-based technology.

We are advocates of universal screening procedures, implemented on a regular basis, that systematize the screening-identification process, that integrate the above methods into a comprehensive system, and that avoid or buffer many of the problems

attendant upon idiosyncratic teacher referrals. In the next section, we review our work in developing, validating, and standardizing multiple-gating approaches to the universal screening of students in the preschool through elementary age range to accurately identify those who are behaviorally at risk.

Screening With Multiple Gates: The SSBD & ESP Systems

Since 1985, the present authors have been engaged in a systematic program of research focused on two primary goals: 1) the proactive, universal screening of children from ages 3 through 11 who are experiencing school-related behavior disorders, and 2) coordinating school and home intervention approaches to ensure that each behaviorally at-risk child gets off to the best start possible in school. The *Systematic Screening for Behavior Disorders* (SSBD) procedure was developed and field-tested to accomplish the first goal. The *First Step to Success* early intervention program was developed and evaluated to accomplish the second goal.

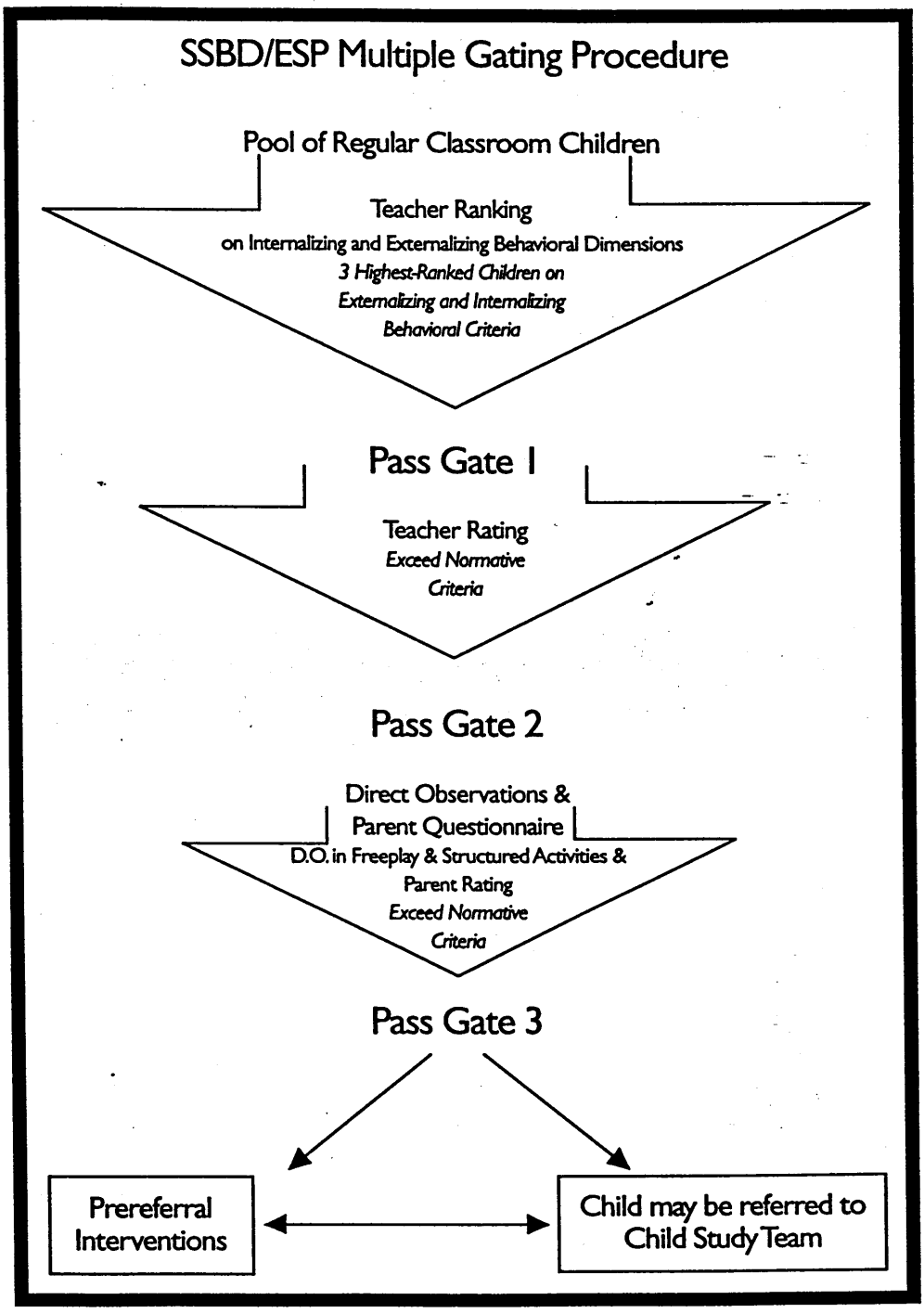
Systematic Screening for Behavior Disorders (SSBD). Walker and Severson (1990) developed the *Systematic Screening for Behavior Disorders (SSBD)* screening procedure for use with elementary-age children (K–6 grades) based upon a conceptual model, and corresponding empirical findings, that children's problem behavioral characteristics can be divided reliably into "externalizing" (e.g. aggressive, hyperactive, noncompliant, antisocial, etc.) and "internalizing" (e.g. shy, phobic, depressed, anxious, isolated from peers, etc.) dimensions (see Achenbach, 1991; Ross, 1980). The *SSBD* was patterned after screening models developed and validated by Greenwood, Walker, Todd, & Hops (1979) for the preschool screening of children at risk for social withdrawal and by Loeber, Dishion, and Patterson (1984) for the screening of adolescents at risk for later delinquency. The *SSBD* is a proactive, universal screening procedure that gives each student an equal chance to be screened and identified for either externalizing or internalizing behavior disorders. The *SSBD* procedure consists of three screening stages or gates where movement through each gate is required for consideration at the next gate. Most students are screened out in the initial *SSBD* gates because they do not meet the behavioral criteria necessary to proceed to the next phase of screening.

Walker and Severson began their first trial testing of the *SSBD* in the mid-1980s and conducted extensive research, supported by a series of federal grants, on this screening system prior to its publication in 1990 (Walker, Severson, et al., 1990).

Figure 3 illustrates the three screening stages of the *SSBD*. In stage one, teachers are asked to think about all students in their class and to nominate those students whose characteristic behavior patterns most closely match either the externalizing or internalizing behavioral definitions provided for them. The three highest ranked externalizing students and the three highest ranked internalizers then move to screening stage (gate) two where their behavior is more specifically rated by the teacher on a 33-item Critical Events Index (CEI) and on both an Adaptive (11 items) and a Maladaptive (12 items) Likert rating scale that requires estimates of frequency of occurrence.

FIGURE 3

SSBD/ESP Multiple Gating Procedure



Note

Feil, E. G., Walker, H. M., & Severson, H. H. (1995). The early screening project for young children with behavior problems. *Journal of Emotional and Behavioral Disorders, 3,* 194–202, 213. Reprinted with permission.

Students who exceed national, normative cutoff scores on these measures move on to gate three where they are observed in classroom and playground settings. Using a direct observation procedure, a school professional (school psychologist, counselor, or behavioral specialist) observes and codes each target child's behavior for two 20-minute sessions in the regular classroom. A stopwatch measure of Academic Engaged Time (AET) is used for the classroom observations. A 10-second, partial interval code (*Peer* Social Behavior, or PSB) that records the level, quality, and distribution of the target student's peer-related, social behavior at recess, is used to assess the target student's playground behavior during the two 20-minute sessions. Normative data for the stage two instruments consist of over 4,000 cases representing the four U.S. census zones. The *SSBD* user's manual also provides normative observation data for the AET and PSB codes involving over 1300 cases—also collected across the four census zones.

Those students who exceed national, normative cutoff points on the AET and PSB codes are considered to have serious problems and are referred for further evaluation to specialized, school-based services. As a rule, an archival records search is conducted at this point to provide confirmation of the results of the screening-identification process and serves as a further source of information for decision making.

The first two screening stages of the *SSBD* can be completed by the classroom teacher in approximately 1 hour. This screening procedure typically identifies one externalizer in every classroom and one internalizer in every two or three classrooms. The time involved in conducting *SSBD* screening assessments increases as one moves through the screening stages; however, the number of students who are the targets of those assessments is greatly reduced from stage one to three. It is recommended that universal *SSBD* screenings be conducted twice a year (e.g., in October and February) to identify students in need of intervention supports and services and to maximize the sensitivity of school staff to initial behavior problems in the fall and to detect emerging behavior problems later in the school year. The SSBD has been extensively researched and has excellent psychometrics (see Walker & Severson, 1990).

Following publication of the *SSBD,* considerable interest was expressed by other researchers in adapting the screening system. Eisert, Walker, Severson, and Block (1989), for example, conducted a study to determine whether the *SSBD* could be successfully adapted for preschool use. These investigators found that the Peer Social Behavior (PSB) observation data were able to reliably discriminate among preschool groups of Externalizers, Internalizers, and non-behavior-problem children in free play settings at recess.

Another successful adaptation by Sinclair, Del'Homme, and Gonzalez (1993) was reported in which the *SSBD* was further tested with preschool children. In this study, Sinclair and her colleagues made the following changes to the *SSBD* procedure: (a) in stage one, the teachers were asked to nominate and rank order only seven Externalizers and seven Internalizers (out of classes of 15) rather than 10 of each; (b) the direct observation of Academic Engaged Time was eliminated; and (c) the time allocated to direct observations using the PSB code was doubled. The research by Sinclair and colleagues was encouraging in that it resulted in changes that were needed to make the *SSBD* more appropriate for the preschool population.

In 1990, Edward Feil, in collaboration with the *SSBD* authors, began work on the development of a preschool version of the *SSBD*. The adapted version of the *SSBD* is called the *Early Screening Project* (ESP) and was published in 1995. In revising the *SSBD* for use with preschoolers, these authors found it necessary to change some of the *SSBD* procedures and instruments in order to take into account developmental differences between younger and older students. These changes have been detailed elsewhere (Feil & Becker, 1993; Feil, Walker, & Severson, 1995).

Beginning in 1991, studies on the *ESP* were conducted to assess its reliability and validity (see Feil & Becker, 1993). These findings have proven promising to date; the *ESP* reliability and validity data consistently show very strong results. The interrater reliability coefficients of most *ESP* measures are at least .80, which meet Salvia and Ysseldyke's (1988) guidelines for a screening instrument. Validity studies consistently show strong relationships between the *ESP* screening measures and selected, concurrent validity measures (e.g., *Conners Teacher Rating Scales* [Conners, 1989] and *Preschool Behavior Questionnaire* [Behar & Stringfield, 1974]). Results for the *ESP* also show good sensitivity (62%) and excellent specificity (94%), suggesting that it provides accurate assessments with a minimal risk of identifying a child who exhibits developmentally appropriate behavior.

The *ESP* can be a valuable tool for early childhood educators in screening for school adjustment problems at an early age; the problems can then be addressed through developmentally appropriate early intervention(s). Preschool programs, facing increasing federal and state requirements (e.g., Child-Find), need to maximize their resources within a proactive and fair child-find system. We believe the *ESP* can minimize the time and materials costs of preschool behavioral assessments while increasing their level of accuracy over that produced by many currently used approaches.

The universal, early screening of behaviorally at-risk children can only be justified if effective early intervention supports and services are available to address the needs of those who are identified. The next section describes our work over the past decade in developing a collaborative home-school, early intervention program that addresses challenging forms of child behavior at the point of school entry.

EARLY INTERVENTION TO ADDRESS CHALLENGING BEHAVIOR

Substantial research indicates that earlier intervention is a promising strategy in diverting antisocial children from a path that leads to numerous destructive outcomes (Eddy, Reid, & Curry, this volume). Reid (1993) has noted that effective early interventions must include the three social agents who have the greatest influence in a developing child's life (i.e. parents, teachers, and peers). Greenberg et al. (1999) have developed criteria that define effective interventions, along with intervention programs matching these criteria, that address externalizing and internalizing behavior disorders.

The *First Step to Success* early intervention program was identified by Greenberg et al. (1999) as a model program in their review. This intervention program is designed to achieve secondary prevention goals and targets those at-risk children who exhibit

high levels of aggressive and/or oppositional behavior and who are likely to fail school (see Walker et al., 1997). This collaborative home and school intervention involves (a) school and home activity rewards provided for appropriate school behavior, (b) group and individual reinforcement systems, (c) a school-based point system, (d) behavioral contracting procedures, (e) adult praise, and (f) a home visiting curriculum. The *First Step* intervention is implemented initially by a school professional (e.g., counselor, school psychologist, early interventionist) who serves as a behavioral coach. The classroom teacher takes over running *First Step* on a daily basis after the first five program days have been successfully completed by the coach.

First Step is initiated in classroom situations but can be extended to the playground and other school settings as needed. The home visiting component of the program, called homeBase, consists of six visits with the family (one per week) by the behavioral coach to work with the child's parents in teaching and practicing school success skills at home. HomeBase skills address the constructs of communication, cooperation, limit setting, problem solving and emotional regulation, friendship making, and self-esteem. *First Step* has three modules: (a) a proactive universal screening procedure, which provides four screening options including the *ESP* procedure described earlier, (b) a school intervention that targets the at-risk child, peers, and teachers and teaches the target child an adaptive behavior pattern at school, and (c) a parent-training component in which parents or caregivers are exposed to six lessons, as noted (over a 6-week period) that allow them to teach their child key skills for enhancing school adjustment and success. These *First Step* modular components are described below in more detail.

The classroom component of *First Step* uses a preschool adaptation of the Contingencies for Learning Academics and Social Skills (CLASS) Program (Hops & Walker,1988) developed for remediating the behavior problems of acting-out children. The coach meets initially with the child and directly teaches him or her appropriate forms of social behavior, specific to classroom (teacher-related) and playground (peer-related) interactional contexts. Following this instruction, the school intervention program is implemented for two brief periods (20–30 minutes/day) daily during the 5-day, coach phase. On the 6th day, the regular teacher assumes control of the program. By day 10, the intervention is expanded to all settings and periods in which the child is experiencing problems. Home and school incentives are provided to support the child's attempts at behavior change and to motivate peers to participate in the intervention as special helpers and supportive agents.

In the homeBase part of *First Step,* parents are taught how to help their child get off to a good start in school. The six weekly, skills-building sessions (of approximately an hour each) are held with the parent(s) (usually in the home) and are facilitated by the *First Step* coach. During each session, (a) the activities of the past week are reviewed and discussed, (b) new skills are presented to the parent(s) to be taught and practiced with the child, and (c) practice sessions (5 minutes/day) are modeled, role-played and set up for the parent and child. A series of games and fun activities are provided to the parent(s) and child for practicing and strengthening the newly learned

skills during daily parent-child interactions. The child's teacher also praises the child's reports of learning and practicing these skills at home and prompts and praises their display at school.

Effectiveness of the First Step Program

The *First Step* intervention was successfully implemented and trial-tested in the Eugene, Oregon, 4J School District during the 1993-94 and 1994-95 school years. A total of 46 kindergarten children, who were at risk for developing antisocial behavior, and their teachers, peers, and parents participated in the intervention (24 in year one and 22 in year two). Of the 46 cases, 26% were female, 33% were receiving special education services by the end of the study, 7% were children of minority status, and 37% lived in families with low incomes (i.e., children received reduced or free lunches).

A cohort design, with experimental and wait-list control groups, was used to evaluate *First Step* intervention effects and to establish a causal relationship between the intervention and resulting changes in child behavior. Cohorts 1 and 2 were divided into two equal groups with half the students receiving the *First Step* intervention in Year 1 and the other half serving as wait-list controls during the intervention. Both groups were assessed at pre- and postintervention time points. The wait-list controls were then subsequently exposed to the *First Step* intervention during Year 2. A complete description of the results of this investigation, along with pre-post and follow-up data, can be found in Walker et al. (1998). Longer-term follow-up results into Grades 4 and 5 for these same cohorts are reported in Epstein and Walker (in press).

The results of the *First Step* intervention were particularly encouraging in that they moved target students to points within the normative range on two of the most important measures used to evaluate the program (i.e., teacher ratings of child aggression on the Child Behavior Checklist and direct observations of academic engaged time). Measures of aggression are markers for later antisocial behavior patterns and for a host of social adjustment problems (Loeber & Farrington, 1998). Academic Engaged Time (AET) is a moderately strong correlate of academic performance and provides a sensitive measure of a student's ability to meet the academic demands of instructional settings. Normative levels for AET, based upon observational data, are considered to be in the range of 75% to 85% when recorded within regular classroom settings (see Rich & Ross, 1989).

At preintervention, Cohort 1 students averaged 62% AET and Cohort 2 students 59% AET; at immediate postintervention following the 3-month intervention, these percentages were 82% and 90%, respectively. Longer-term follow-up results indicated that substantial portions of the original cohorts' intervention gains were maintained across the primary and intermediate grades where cohort members had been assigned to differing teachers and peer groups within each grade level. This was especially true for the AET measure. Child aggression ratings on the Achenbach Checklist showed satisfactory maintenance from their immediate, postintervention levels.

Replication and Social Validation of the First Step Program

During the 1996–97 school year, Golly, Stiller, and Walker (1998) conducted a replication and social validation study of the *First Step* intervention program. They applied the intervention to 20 kindergartners identified as having the early signs of a developing, antisocial behavior pattern and used the same dependent measures as Walker et al. (1998). Their results were almost identical to those reported by Walker et al. (1998). As part of this replication study, Golly et al. trained 141 school district personnel in a 1-day workshop format in how to implement the *First Step* intervention. These trainees were then followed up at the end of the school year to determine how many had actually implemented *First Step* and how satisfied they were with it. Approximately half of these trainees were able to implement *First Step* during the current school year. All those who implemented it and responded to the survey reported high levels of satisfaction. The most commonly cited barriers they encountered during implementation were (a) parents who did not consistently follow through with their homeBase responsibilities, (b) lack of administrative support, and/or (c) not having the resources necessary to implement the program. Participants also reported high satisfaction levels with the workshop training.

Future Directions for the First Step Program

Currently, *First Step* is being implemented in 16 states, three Canadian provinces, and Australia and New Zealand. In the 1999 legislative session, the Oregon Legislature appropriated $500,000 to begin making *First Step* available to all school districts and schools in Oregon that wished to adopt it. In the past two years, our staff has trained teams of school professionals in *First Step* implementation in 30 of Oregon's 36 counties. We plan to continue this Oregon *First Step* replication initiative in Oregon for the foreseeable future.

A Spanish translation of *First Step* currently exists. We have spent the last two years developing the Pre-K version of the program for 3- to 5-year-olds. In March 2001 the authors received a 5-year grant from the U.S. Administration on Children, Youth, and Families to establish a Head Start Quality Research Center focused on adapting the Pre-K *First Step* program for use with Head Start children and families. We look forward to pursuing these new initiatives and expect they will further strengthen and extend the program's reach.

POLICY RECOMMENDATIONS

The ultimate goal of any behavioral intervention is to affect the incidence or prevalence of a significant recurring problem. Progress in impacting the skills of individual children and their parents via family-friendly interventions needs to result in correlated changes in the reduced prevalence of behavior disorders. In order to decrease the occurrence of antisocial behavior, it is of critical importance that validat-

ed, cost-effective home and school interventions be delivered early on in the school careers of at-risk children.

The origins of antisocial behavior patterns are in evidence at a very early age, and these behavioral signs can be prevented from escalating into more serious and intractable problems. Such effective practices should include universal screening to provide early detection, school-based interventions, training in parenting skills, and teacher inservice training, all of which have been empirically demonstrated to increase prosocial behavior and reduce aggressive behavior problems (Jensen, 2001; Reid, 1993; Walker, Colvin, & Ramsey, 1995). If we are to succeed in diverting the thousands of children who are currently on a destructive life path from long-term negative outcomes, it is imperative that we make far greater investments in prevention initiatives than is currently the case. Many of the children currently entering the schoolhouse have already been exposed to numerous, severe risks in their first years of life. The damaging effects of such exposure can easily be seen in the behavioral, emotional, and social characteristics of such children as they try to cope with the unfamiliar demands of the schooling process.

In many cases, these children come from such dysfunctional backgrounds that the normalizing and protective influences of the schooling process are insufficient to undo their background's negative impact. These children are destined to struggle in school and in many other sectors of their lives. They are candidates for secondary and tertiary prevention strategies from the moment they begin their school careers (see Eddy, Reid, & Curry, this volume). Other children are at risk, but at far less severity, and they are much more likely to have successful school experiences. Some may demonstrate the social resiliency necessary to lead productive, fulfilling lives (Katz, 1997).

We believe the risk factors that result in children coming to school suffering from such damage can be effectively addressed by nurse home-visiting programs (see Olds et al., 1999), by Head Start, by proven preschool models such as the remarkably effective Perry Preschool Project (see Barnett, 1985), and by the Regional Intervention Program developed by Strain and his colleagues (Strain & Timm, in press), which teaches families how to cope effectively with severe oppositional behavior in young children. A coordinated continuum of effective early interventions, including the above programs, that addresses the needs of severely at-risk children from ages 0-5 and their families, is a social investment that has the potential to return significant cost savings over the long term.

Similarly, we need to ensure that every child has access to the supports and resources necessary to successfully negotiate the transitions from preschool to kindergarten and first grade. Getting off to the best possible start in school is of critical importance to every child and, most especially, to an at-risk child's school career. Compelling longitudinal research by Hawkins et al. (1999) shows that comprehensive early intervention, delivered in the first three grades of school and that involves parents, teachers, and the target child, provides protection against a number of health-risk behaviors at age 18. These risks include delinquent acts, school failure and dropout, teenage pregnancy, heavy drinking, school behavior problems, and having multiple sex

partners. We cannot afford to ignore the enormous policy implications of these and similar robust findings.

We currently have the knowledge and available expertise to implement these prevention initiatives with good integrity. However, as yet, we have not demonstrated the will to (a) assume ownership of them, (b) invest the resources necessary to support their implementation, and (c) provide the long-term supports that will ensure their maintenance and durability. We are hopeful that the next decade will see positive changes in the policies of schools, mental health systems, social services agencies, and legislative bodies that will allow these important goals to be realized.

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