

Excerpted from Chapter 1 and Chapter 6 of the **Manual for the Temperament and Atypical Behavior Scale**

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## **An Overview**

Children may be declared eligible for early intervention services for several reasons. The major basis for eligibility determination and program planning is significant delay in developmental milestone attainment. A second basis for concern is the presence of unusual, atypical behaviors. Significant levels of atypical behavior can result in developmental delays as well as confront parents and other caregivers with management challenges.

Until the mid- to late 1990s, children who manifested behavior or temperament problems were served by psychiatrists or psychologists who typically conducted their assessments by clinical observation and parent interview. Today behavior problems are more readily recognized, and assessment relies on numerous checklists and rating scales for determining children's self-regulation, temperament, and behavior patterns. Unfortunately, few of these tools are designed to assess infants and young children, and those devices that do target this population frequently suffer from a lack of norms and limited reliabilities and validities.

**The Temperament and Atypical Behavior Scale (TABS)** was developed to provide a reliable and valid, norm-referenced, individually administered measure of dysfunctional behavior appropriately used with infants and young children between the ages of 11 and 71 months. In developing TABS, we were guided by our own research as well as research and professional opinion dealing with the assessment and diagnosis of early childhood behavior disorders. Temperament generally refers to one's characteristic emotional style or disposition. Extremes of temperament are often regarded as socioemotional disorders that can impede general development. We defined atypical behavior as conduct that is sufficiently aberrant to 1) signal problematic, dysfunctional development, or 2) threaten present or future development. Behaviors may be quite unusual in their own right regardless of age (e.g., makes strange throat noises), when compared with same-age peers (e.g., doesn't have a regular sleep schedule), or in terms of frequency or intensity (e.g., flaps hands over and over, consistently upset by changes in daily schedule). Atypical behaviors are commonly associated with a variety of syndromes and behavior disorders. As a norm-referenced scale, TABS is intended to identify children who are either developing atypically or are at risk for atypical development. In addition, when used for clinical

purposes, TABS data can indicate specific areas of concern and can be the basis for planning early intervention programs for children and support programs for parents.

## **COMPONENTS**

There are three components of TABS: the Screener, the Assessment Tool, and the TABS Manual.

### **TABS Screener**

The 15-item Screener was designed for rapid identification of children who should receive more thorough, close-up assessment for developmental issues related to temperament and self-regulation. The Screener can provide documentation of atypical functioning. It can also be routinely included in developmental assessment programs or more general screening programs. Of course, children referred because of concerns related to atypical behaviors (rather than only delays) should be assessed with the full TABS Assessment Tool.

### **TABS Assessment Tool**

The TABS Assessment Tool is a form containing a checklist of specific behaviors. Next to each behavior, there is a place for the respondent (usually one or both parents) to record whether the child in question exhibits the behavior and, if so, whether the parents need help with the behavior. In addition, there is space to document relevant information about the child, space to write both the total raw score (*Temperament and Regulatory Index [TRI]*) and the raw scores for each of the four subtests or factors, and space to record the percentiles and standard scores associated with the raw scores.

### **TABS Manual**

The TABS Manual contains seven chapters and an appendix. Chapter 1 provides an overview of TABS. Chapter 2 outlines a rationale and research basis for the scale and discusses the importance of and dysfunctions related to temperament and self-regulation. Chapter 3 provides instructions for using TABS as well as extended illustrations. Chapter 4 focuses on item development and standardization, and factor extraction, reliabilities, and validities are discussed in Chapter 5. The last two chapters (6 and 7) offer guidelines, examples, and research-based interventions for many of the behaviors identified with TABS. The appendix includes a list of agencies and organizations contributing to the TABS sample as well as a conversion table used in scoring the Assessment Tool.

## **CONTENT SUMMARY**

On the TABS Assessment Tool, atypical self-regulatory behavior is assessed by 55 items in areas such as temperament, attention, attachment, social behavior, play, vocal

and oral behavior, senses and movement, self-stimulation and self-injury, and neurobehavioral state. Four psychometric factors underlie the 55 items and are arranged into four subtests on the Assessment Tool. These four factors (referred to as factors or subtests interchangeably throughout this manual) define a construct of atypical temperament and self-regulation.

### **Factor 1: Detached**

For infants and young children, a *detached style* of temperament and self-regulation is exemplified by behavior that is withdrawn, aloof, self-absorbed, difficult to engage, and disconnected from everyday routines involving adults or other children. This behavior can be manifested in a variety of activities and contexts. Infants and young children with a detached style may *look through or past people, tune out, lose contact with what is going on, often just stare into space, or act like others are not there*. Behavior assessed by Subtest 1 is commonly associated with autism spectrum disorder (ASD).

### **Factor 2: Hyper-sensitive/active**

For infants and young children, a *hypersensitive/active* style of temperament and self-regulation is exemplified by behavior that is overreactive to even slight environmental stimulation, impulsive, highly active, negative, and defiant. This behavior can be manifested in a variety of activities and contexts. Infants and young children with a hyper-sensitive/active style may be *difficult to soothe when upset and crying; frequently irritable, touchy, or fussy; mostly on the go; too grabby, impulsive; or destructive*. Behavior assessed by Subtest 2 is commonly associated with attention-deficit/hyperactivity disorder (ADHD).

### **Factor 3: Underreactive**

For infants and young children, an *underreactive* style of behavior is truly unresponsive and requires intense environmental stimulation to elicit a response. An underreactive style is associated with limited awareness, low alertness, passivity, and lethargy—it differs from a detached style that *actively* avoids engagement. Infants and young children with an underreactive style may *show no surprise to new events; not be upset when a favorite toy is taken away; not react to sounds; or rarely smile, giggle, or laugh at funny things*. Behavior assessed by Subtest 3 is commonly associated with a variety of severe neurodevelopmental problems (i.e., problems presumed to have primarily a neural basis, such as problems related to brain injury and more subtle neurological impairment).

### **Factor 4: Dysregulated**

For infants and young children, a *dysregulated* style of temperament and self-regulation is exemplified by difficulty controlling or modulating neurophysiological behavior (e.g., sleeping, crying, self-comforting) and oral-motor control (e.g.,

jitteriness and hypersensitivity to physical contact). Infants and young children with problems in regulation may *cry too long, need help falling asleep too often, scream in their sleep, or be inconsolable.*

## **PURPOSES**

TABS was developed to meet the increasing need to assess the presence of developmentally dysfunctional behavior rather than delayed or absent appropriate behavior (e.g., developmental milestones). Many infants and preschoolers may not manifest developmental delays sufficient to qualify for early intervention services; nevertheless, they may exhibit difficulties in temperament and self-regulation that can result in serious behavior problems and that may lead to delayed development if untreated. Early identification and intervention may reduce the severity of these behaviors and may assist parents in coping with and managing disordered behavior.

TABS may be used alone or as part of a comprehensive assessment battery. Because TABS is norm-referenced, clinicians and service providers can compare the frequency of a child's dysfunctional behaviors to the frequency of such behaviors in children generally. Because TABS items are written in terms of behaviors or specific characteristics, they can be specifically targeted for intervention. And, because certain interventions can be suggested for each behavior and parents are encouraged to indicate whether they would like help in coping with specific problems, TABS is useful for designing individualized family service plans (IFSPs) as well as individualized education programs (IEPs) and wraparound mental health behavioral support plans.

TABS may also be used in a variety of research activities, such as evaluating the frequency of temperament and regulatory problems in groups of young children with a variety of developmental problems, ascertaining the joint occurrence of temperament and regulatory disorders with other developmental problems (e.g., social or language disorders), evaluating the effect of interventions with parents and children, and so forth. As summarized in Table 1.1, TABS can be used for screening, determining eligibility for special services, planning education and treatment programs, monitoring program effectiveness, and conducting research.

## **ADMINISTRATION**

The TABS Screener and Assessment Tool can be completed by the *parent or professional who knows a child's daily behavior well enough to respond Yes or No to each item.* Most parents will be able to complete the TABS Screener in 5 minutes or less and the TABS Assessment Tool in 15 minutes or less.

Parents are the preferred respondents for several reasons. First, in most cases, parents will have the best knowledge of their child's behavior at home. Second, using information provided by parents can decrease assessment costs and professional time (Clark, Paulson, & Conlin, 1993). Third, public law and professional ethics require that parents participate in the assessment process. Because parents are the preferred respondents, we developed administration procedures according to the guidelines for designing "parent-friendly" materials suggested by Diamond and Squires (1993) and Neisworth and Bagnato (1996). Parents should not be rushed to complete the TABS Screener or Assessment Tool. They can complete them during or after a home or office visit or be guided to complete them through a telephone interview, and they may be given additional explanations without violating the administration procedures of TABS. Although TABS items have been written at a third-grade reading level, some parents may have difficulty reading them, in which case items may be read to them, again without violating administration procedures. Finally, a professional familiar with the child can complete the Screener or Assessment Tool with input from the adults who live with the child.

## **ILLUSTRATION OF USE IN AN INTERVENTION PROGRAM**

Amy was an 11-month-old infant with multiple diagnoses including prematurity, athetoid cerebral palsy, possible visual problems (neurologically based), and global developmental delay. Her mother had been referred to ZERO TO THREE: National Center for Infants, Toddlers, and Families when Amy was 7 months old. An IFSP included service coordination, transportation, home- and center-based parent training, infant stimulation, occupational therapy, and physical therapy. General recommendations regarding sleep problems were provided by the service coordinator.

When Amy was 9 months old, a referral was made for behavioral consultation services. Staff requested more specific readings related to sleep problems and suggestions for providing Amy's 18-year-old mother with more support. The sleep problems failed to improve after 2 additional months. Amy's mother reported that the sleep problems were significantly disrupting her ability to participate in early intervention activities and disrupting her partner's sleep and work schedule. She reported that she felt she was at risk for abusing Amy because of her own severe sleep deprivation.

### **1. Identify the Problem and Restate it as a Goal**

Amy's mother reported that Amy had always cried intensely and for long periods when she was put to bed; that she rarely fell asleep on her own; and that when she did sleep, it was for short periods (less than 2 hours). She stated that her highest priority for Amy was establishing a sleep schedule. Her goal was to get Amy to sleep through the night and take regular naps during the day.

## **2. Assess Behavior, Function, and Risk/Protective Factors**

The team considered several questions before beginning the assessment process. Exactly what kind of sleep problems was Amy experiencing? Were they related to her age, developmental level, medical condition, or parenting factors, or were they influenced by the parent-child relationship? How much sleep should she be getting, and why had she not established a better sleep routine? Were there any payoffs for Amy or her mother that might be encouraging the problem sleep patterns?

The behavioral specialist met with Amy's mother at her home and asked her to describe Amy's sleep patterns, how they evolved over time, and her insights into the problem. From her mother's description, it appeared that Amy was experiencing frequent waking, waking for feeding, difficulty getting to sleep, difficulty sleeping alone, and unusual sleep cycle (see Ferber, 1985; Huntley, 1991). She revealed that because her partner was working very long hours, she feared Amy's crying would disrupt his sleep schedule. She explained that she had read about parenting tips on how to encourage typical sleep patterns, but she encountered several problems. First, she was concerned that, because Amy had so many medical problems, she was uncomfortable letting her cry for extended periods. She feared crying would induce a seizure or heart problems. She also reported that sometimes Amy's intense, shrill crying made her so angry that she was afraid she would lose her temper and hurt her. She reported that she held Amy nearly continuously, partly to prevent Amy from crying and partly because it helped her to feel close to her child.

During this meeting, Amy's mother was encouraged to call her pediatrician and discuss her concerns regarding medical complications. She did so, and her pediatrician verified that Amy had no medical problems that would be exacerbated by crying and strongly encouraged her to work on establishing a more typical sleep routine. After about 2 hours of directed but supportive discussions, Amy's mother concluded that she was unwittingly encouraging Amy's problem behavior by constantly holding her and that there was more she could do to encourage her to learn to sleep on her own.

## **3. Specify an Objective for the Intervention**

Amy's atypical sleep pattern clearly warranted intervention: It significantly disrupted family functioning and interfered with her therapy schedule. With guidance from parenting books and trusted mentors (including early intervention professionals), the objective was for Amy to develop typical bedtime and sleep patterns. Ideally, she would sleep from 9 P.M. to 7 A.M. and nap from 1 P.M. to 3 P.M.

#### **4. Collect Baseline Data on the Problem Behavior**

From the first consultation, Amy's mother was encouraged to keep a daily sleep log (including a description of activities preceding sleep, as well as sleep and wakening times, and a description of how she [Amy's mother] handled awakenings and crying). This log revealed that Amy was sleeping approximately 9-14 hours per 24-hour period, with night sleep duration from 6.5 to 9.25 hours in length, and was taking two to six naps per day, ranging from .25 to 2.5 hours in length. The log also revealed that Amy nearly always fell asleep in her mother's arms, awakened when her mother tried to transfer her to her own bed, and was immediately comforted by her mother when she fussed.

#### **5. Plan the Intervention**

The behavioral consultant, Amy's mother, and the service coordinator met to plan the intervention. After reviewing and discussing several books for parents on sleep problems, Amy's mother elected the intervention approach referred to by Huntley (1991) as the "cry it out approach." This approach assumes that the payoff for crying, which serves to reinforce the behavior, is parent attention. As the parent attempts to comfort the crying child, she interferes with the child's development of independent sleep habits. Intervention involves letting the child cry, possibly for extended periods, so that she can learn to put herself to sleep.

Parent training included development of a simple bedtime routine for Amy (bath, pajamas, crib, pacifier, blanket, lullaby tape, nightlight, consistent nap- and bedtime), and development of plans for the parents when Amy cried (distraction strategies included listening to a relaxation tape, reading, watching television with ear plugs if necessary, asking spouse for support, or contacting on-call team members for assistance).

#### **6. Implement the Intervention and Ensure Correct Implementation**

A target date was identified, and the specialist maintained daily contact during the first week to help clarify the procedures, troubleshoot, and offer encouragement. Several home visits were made to observe the bedtime routine and provide feedback. Sometimes Amy's crying was so intense that her mother gave in and picked her up. When she revealed these lapses in the protocol, she was encouraged to use the self-monitoring scale and reminded to contact a friend or the on-call staff member for suggestions and encouragement, which she began to do. She also occasionally suspended the protocol when she suspected that Amy was sick, and she was assured by the team that this was a reasonable option.

#### **7. Monitor Progress and Implementation**

Amy's mother used a checklist to record the implementation of the bedtime

routine, and she noted the time Amy was put to bed and the time she stopped crying and fell asleep. In addition, she monitored her own reaction to Amy's crying using a five-point rating scale (1= I am comfortable ignoring her crying; 5 = I feel like I'm going to lose control of my actions, and I need to call someone for support). As she reported increased comfort with the program and as Amy's schedule gradually normalized, team members attenuated their monitoring contacts (telephone calls and home visits) from several times per day to weekly telephone calls and home visits.

#### **8. Evaluate Progress**

Amy's crying at bedtime decreased from 1-3 hours the first week to 15-55 minutes each time she was put to bed (for either nap- or bedtime) during the second week. Crying at bedtime continued, but the duration decreased gradually over the course of several months. The program was suspended several times when Amy developed ear infections, but each time her mother was able to restart the program. On several occasions, she reported that she considered stopping the program but chose instead to contact a support person (a friend or the on-call team member).

## **CONCLUSION**

TABS has been helpful in documenting the need for behavioral services in community-based early intervention programs, identifying families that need help with the challenging behaviors of their young children, and pinpointing behaviors of concern. This chapter describes a model for providing community-based early intervention for behavior problems and illustrates how the behavior-reduction decision model can provide a framework for assessing complex behavior problems that require ecological or systems-based approaches.