

Many children experience learning difficulties. Some are among the 9.4%<sup>1</sup> of US 16- through 24-year-olds who drop out of school, leading to chronic unemployment, poverty, and higher risk of health problems throughout adulthood. The rate is higher among minority populations of African American non-Hispanics (8%) and Hispanics (22.5%) than white children.<sup>1</sup> Learning difficulties may be caused by cognitive limitations, a language or learning disorder, or behavioral and emotional problems; or associated with chronic disease that affects the child's concentration, interpersonal relationships, or school attendance. Learning difficulties invariably cause frustration, which can lead to or compound behavior problems and emotional distress. As such, learning difficulties are an important concern for primary care clinicians providing mental health services to children and adolescents.

Learning disabilities, including weaknesses in reading, math, and written expression, are conditions diagnosed after a child enters school. While their definitions may vary, it is estimated that between 5% and 17.5% of individuals meet diagnostic criteria and approximately 2 million US schoolchildren aged 6 to 11 years are affected.<sup>2</sup> Eighty percent of those identified have dyslexia or a reading disorder. Etiologies of learning disorders include genetic contributions and unspecified cerebral dysfunction. The effects of learning disabilities can be profound with economic and emotional consequences far into adult life.

### Findings Suggesting Learning Difficulties

**End-of-grade test scores or achievement test scores:** Percentiles are low ( $\leq 15\%$ ) or markedly scattered, or the child is performing considerably less well than would be expected for his or her intelligence.

**Report cards:** Grades are low or markedly scattered.

**Intelligence tests:** Percentiles are within the normal range or significantly higher than measures of academic achievement.

Parental concerns or history suggests

- Child has experienced a delay in language development or has difficulty understanding language despite normal hearing and vision.
- Child has difficulty following directions.
- Child has difficulty learning his letters, numbers, and colors.
- Child has struggled to read, grasp math concepts, or write in comparison with her peers.
- Letter reversals (b/d), inversions (m/w), transpositions (felt/left), substitutions (house/home), or confusion of arithmetic signs persist past peers.
- Child avoids reading aloud, writing, or homework.
- Child or parent is frustrated with the child's academic performance.
- Parent perceives child is "lazy" in school.
- Child is perceived as an "underachiever."
- Classroom behavior or inattention has become a problem.
- Other family members have experienced learning difficulties or did not complete high school.

### Conditions That May Cause Poor School Performance or Co-occur With Learning Difficulties

#### Differentiate From Normal Behavior

Children learn at different rates. Typically developing children younger than 7 years may reverse and transpose letters and experience some frustration with new learning tasks, particularly if the child has had limited preschool experience or other children in the classroom have had more exposure to formal school experiences. Many children will have one or more of the symptoms listed previously from time to time. Children who have missed school for an illness, changed schools, or experienced a significant loss may experience transient problems with school function. Some parents have unrealistic expectations, based on their own learning experiences or that of older siblings or children of friends.

*Hearing or vision problems.* All children who are experiencing learning difficulties should be screened for sensory deficits.

*Sleep deprivation.* Sleep problems can cause inattention and irritability and contribute to poor school performance; conversely, poor school performance and homework struggles may contribute to difficulty sleeping.

*Developmental problems.* Children with overall intellectual or social limitations will learn more slowly than their age-mates. Children with low achievement and low intellectual levels frequently have the same problems as children with learning disabilities.

*Attention-deficit/hyperactivity disorder (ADHD).* Children who are inattentive or impulsive may manifest poor academic performance. They may have problems with getting the work completed and turned in, rather than skill deficits. Conversely, children experiencing academic difficulties may appear restless and inattentive. See Inattention and Impulsivity guidance.

*Exposure to adverse childhood experiences (ACE).* Children who have experienced or witnessed trauma, violence, a natural disaster, separation from a parent, parental divorce or separation, parental substance use, neglect, or physical, emotional, or sexual abuse are at high risk of developing emotional difficulties such as adjustment disorder or post-traumatic stress disorder (PTSD). Children with PTSD can manifest poor concentration, memory problems, school refusal, and academic decline. These children may also manifest other forms of anxiety. Clinicians should speak separately and confidentially with the youth and parents to explore this possibility. Parents are frequently unaware of exposures that children may have had at school or in the community. There may be major traumas in the family (eg, serious illness in a parent, maltreatment of the child, death or incarceration of a loved one) that are similarly not discussed or disclosed. The 3 hallmark symptom clusters of PTSD are reexperiencing, avoidance of memories or situations that recall the trauma, and hypervigilance (ie, increased worry about safety, startling or anxiousness at unexpected sounds or events). See also Anxiety guidance.

*Anxiety.* Anxious children may experience difficulty concentrating and perform poorly on tests. See Anxiety guidance.

*Bereavement.* The vast majority of children will experience the death of a family member or friend sometime in their childhood. Other losses may also trigger grief responses—separation or divorce of parents, relocation, change of school, deployment of a parent in military service, breakup with a girlfriend or boyfriend, or remarriage of parent. Such losses are traumatic. They may result in such symptoms as sadness, anxiety, difficulty concentrating, poor impulse control, or academic decline immediately following the loss and in some instances, more persistently. See also Depression guidance and the discussion of PTSD in Anxiety guidance.

*Depression.* Depression may cause a decline in school performance, result from poor school performance, or simply coexist with learning disabilities. Marked sleep disturbance, disturbed appetite, low mood, or tearfulness could indicate that a child (or more commonly, an adolescent) is depressed. See Depression guidance.

*Physical illness.* Medical issues that may have an effect on school performance include all illnesses that may interfere with the child's attendance. Some illnesses (or symptoms caused by the illnesses) can affect attention in the classroom (eg, hypoglycemia, hyperglycemia, hypo- or hyperthyroidism, neurologic disorders, post-traumatic brain injury), as can side effects of medications such as bronchodilators or anticonvulsants.

*Substance use.* Children frustrated with their school performance may use substances such as alcohol, nicotine, or other drugs to alleviate their frustrations, or self-medicate with caffeine or cocaine. Conversely, children using substances may manifest inattention, impulsivity, and deteriorating school performance. See Substance Use and Abuse guidance.

*Conduct or oppositional disorders.* These disorders may cause poor academic performance, and frustration with poor academic performance can exacerbate conduct or oppositional problems. See Disruptive Behavior and Aggression guidance.

*Autism spectrum disorders* including pervasive development disorder and Asperger syndrome. Children who have these difficulties also have problems with social relatedness (eg, poor eye contact, preference for solitary activities), language (often stilted), and range of interest (persistent and intense interest in a particular activity or subject). They often will have very rigid expectations for routine and become anxious or angry if these expectations are not met. As such, these children may manifest difficulties in the classroom and many of the symptoms associated with learning disorders.

### **Tools for Further Assessment of Learning Difficulties**

**Vanderbilt ADHD Rating Scale** (teacher and parent scales, children aged 6 to 12): The performance section asks the parents and teachers to rate the child's performance in the 3 academic areas of reading, writing, and arithmetic; the Vanderbilt also screens for mental health comorbidities.

*Conduct a general psychosocial screen such as*

**Pediatric Symptom Checklist (PSC)-35**

**PSC-17**

**Strengths and Difficulties Questionnaire (SDQ)**

*Communicate with school personnel (eg, guidance counselor, classroom teacher, school psychologist) to request further data and observations, such as*

**Intelligence testing:** School personnel may be willing to administer a cognitive screening test or, if there are apparent discrepancies between intelligence and academic achievement, a full battery of psychological tests.

**Achievement testing:** School personnel can provide a screening test or reports of achievement or end-of-grade tests.

**Full psycho-educational evaluation:** School psychologist or community psychologist may provide, by referral.

**School placement and special services**

**Individualized Educational Program (IEP) or 504 plan,** if in place

**History of academic progress, behavior and discipline, and peer interactions**

### **Evidence-Based and Evidence-Informed Interventions for Learning Difficulties (as of April 2010)**

#### **Interventions for Comorbidities**

- See guidance specific to that condition.

#### **Selected Informational Links**

- Learning Disabilities Association of America, 4156 Library Rd, Pittsburgh, PA 15234-1349, 412/341-1515, [www.ldanatl.org](http://www.ldanatl.org)
- National Dissemination Center for Children with Disabilities (NICHCY), 1825 Connecticut Ave NW, Suite 700, Washington, DC 20009, 800/695-0285, [www.nichcy.org](http://www.nichcy.org)

## Plan of Care for Children With Learning Difficulties

### Engage child and family in care.

#### Engaging Children and Families in Mental Health Care: A Process for Pediatric Primary Care Clinicians\*

Reinforce strengths of child and family. Follow the mnemonic HELP to

- Build trust and optimism.
- Reach agreement on incremental next steps and, ultimately, therapeutic goals.
- Develop plan of care (see the following clinical guidance).
- Collaboratively determine role of primary care clinician, eg, provide intervention(s); provide initial intervention while awaiting family's readiness for or access to specialty care; coordinate with specialist(s), child care, school, or agencies; monitor progress; encourage child and family's positive view of treatment.

*\*Without engagement, most families will not seek or persist in care. Process may require multiple primary care visits.*

### Encourage healthy habits.

Encourage exercise, outdoor play, balanced and consistent diet, sleep (critically important to mental health), avoidance of exposure to frightening or violent media, special time with parents, acknowledgment of child's strengths, and special efforts to support the child and help him or her to feel competent, special, positive, and appreciated.

### Reduce stress: consider the environment

(eg, family social history, parental depression screening, results of any family assessment tools administered, reports from child care or school).

*Is the parent punitive or critical?* If parents' psychosocial problems are affecting their relationship with the child, explore their readiness to address these problems as part of helping their child. Encourage praise for their child's efforts. Urge parents to avoid comparisons with siblings or peers and to keep up child's self-esteem. Urge parents to nurture the child's nonacademic gifts, such as art or music, and encourage the child's participation in extracurricular

activities that provide social experiences uncomplicated by academic performance and competition (eg, scouts, church youth group, boys' or girls' club).

*Are there battles over homework?* Advise parents that the child is not lazy. Provide guidance about helping with homework (and requesting modified assignments, as appropriate). See the following.

*Is the child exposed to criticism or teasing at school? Is the child's teacher supportive and patient?* Provide strategies for communication between school personnel and home; coach them to praise progress and effort, not just outcomes, and to address teasing or bullying.

*Are school authorities proceeding with assessment in accordance with the child's rights?* Inform parents about the child's rights under the Individuals With Disabilities Education Act (IDEA) and Section 504 of the Rehabilitation Act. It is important to obtain information about how these 2 acts are specifically implemented in your state and school districts. If a child has a learning disability, he or she qualifies for specialized educational services, and IDEA requires that the school develop an Individual Education Plan (IEP). The IEP documents the child's current level of functioning, establishes goals, and delineates the services needed to meet those goals in the least restrictive environment possible. The parent is entitled to meet with school personnel to review and approve the IEP. If the child does not qualify for specialized educational services but has minor disabilities that can be helped with minor classroom modifications (eg, preferential seating, homework modifications), the school may develop a 504 plan for the child. If the parent is dissatisfied with the school's response to the child's needs, there is an appeal process within the school system.

If the school is not adequately addressing the child's needs, the clinician may offer referral to a community mental health professional such as a psychologist or developmental-behavioral pediatrician, or an educational tutor. Results of this assessment may provide support for the parent's advocacy efforts in the school system or may guide the family in developing tutorial assistance for the child.

Acknowledge and reinforce protective factors, eg, good relationships with at least one parent or important adult, pro-social peers, concerned or caring family, help-seeking, connection to positive organization(s).

**Offer initial intervention(s).**

**Address comorbid conditions.**

See other cluster guidance for primary care of commonly co-occurring mental health problems.

**If there are battles over homework, offer guidelines to parents.**

√ **Homework Guidelines for Parents**

- Establish a routine (not waiting until evening to get started).
- Identify another student your child can call to clarify homework assignments.
- Limit distractions (eg, TV, phone).
- Assist child in dividing assignments into small, manageable segments (especially important for long-range assignments and large projects).
- Assist child in getting started (eg, read directions together, watch child complete first items).
- Monitor without taking over.
- Praise good effort and completion of tasks.
- Do not insist on perfection.
- Offer incentives (“When you’ve finished, we can...”).
- Help your child study for tests.
- Do not force your child to spend excessive time on homework; write a note to the teacher if your child put forth good effort but was not able to complete it.
- If your child fails to turn in completed work, develop a system with the teacher to collect it on arrival.
- If you are unable to provide homework supervision and assistance, or if homework battles are adversely affecting your relationship with your child, ask the teacher for help finding a tutor.

**Offer child and parents resources to educate and assist them with self-management.**

**Brochures**

*Individualized Education Program (IEP) Meeting Checklist*

*Learning Disabilities: What Parents Need to Know*

*Reading for Children: Grades 1–6*

*Your Child’s Mental Health: When to Seek Help and Where to Get Help*

**Web Sites**

Council for Exceptional Children ([www.cec.sped.org](http://www.cec.sped.org)).

Accessed April 29, 2010

HealthyChildren.org Web site ([www.healthychildren.org](http://www.healthychildren.org)).

Accessed April 29, 2010

International Dyslexia Association ([www.interdys.org](http://www.interdys.org)).

Accessed April 29, 2010

LD OnLine ([www.ldonline.org](http://www.ldonline.org)). Accessed April 29, 2010

National Center for Learning Disabilities ([www.nclld.org](http://www.nclld.org)).

Accessed April 29, 2010

**Monitor child's progress toward therapeutic goals.**

- See report "Enhancing Pediatric Mental Health Care: Strategies for Preparing a Primary Care Practice" for monitoring methods.
- School reports can be helpful in monitoring progress.
- SDQ (parent, teacher) and Vanderbilt functional scales can be helpful in monitoring progress with symptoms and functioning.

**Involve specialist(s) if child does not respond to initial interventions or if indicated by the following clinical circumstances:**

- The child or parent is very distressed by the symptom(s).
- There are co-occurring behavior problems not responsive to primary care management.
- School evaluation is incomplete or untimely.
- Parent's relationship with school is adversarial.
- Child and family have conflicts not responsive to primary care management.
- Parent is very negative toward child or unresponsive to primary care guidance.

**✓ Primary care tasks may include the following:**

- Engaging and encouraging child's positive view of his or her specialized instruction and academic progress
- Monitoring academic progress
- Observing for and addressing any comorbidities
- Coordinating care provided by parents, school, medical home, and specialists

**Resources for Clinicians****Reports**

American Academy of Pediatrics Section on Ophthalmology, Council on Children with Disabilities; American Academy of Ophthalmology; American Association for Pediatric Ophthalmology and Strabismus; American Association of Certified Orthoptists. Joint statement: learning disabilities, dyslexia, and vision. *Pediatrics*. 2009;124(2):837–844

**Web sites**

American Academy of Child & Adolescent Psychiatry Practice Parameters available at [www.aacap.org/cs/root/member\\_information/practice\\_information/practice\\_parameters/practice\\_parameters](http://www.aacap.org/cs/root/member_information/practice_information/practice_parameters/practice_parameters)

World Health Organization Web site. Available at: <http://www.who.int/en>. Accessed April 29, 2010

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1. US Census Bureau. School Enrollment—Social and Economic Characteristic of Students: October 2005. Detailed Tables. Table 1. Available at: <http://www.census.gov/population/www/socdemo/school/cps2005.html>. Accessed February 24, 2010
2. American Academy of Pediatrics Section on Ophthalmology, Council on Children with Disabilities; American Academy of Ophthalmology; American Association for Pediatric Ophthalmology and Strabismus; American Association of Certified Orthoptists. Joint statement: Learning disabilities, dyslexia, and vision. *Pediatrics*. 2009;124(2):837–844

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