

DIAGNOSING COEXISTING CONDITIONS IN LEARNING PROBLEMS by Eric Q. Tridas, M.D.



Children who experience learning challenges often demonstrate other problems, too, such as attention and behavior difficulties. The opposite is also true. Children with attention and behavior difficulties tend to have a higher incidence of learning challenges. Therefore, it is important to evaluate the whole child when approaching the diagnosis of these conditions. The ultimate goal should not be "making a diagnosis."

Rather, the emphasis should be identifying all factors (i.e., *comorbidities* or *coexisting conditions*) that are affecting the child. If only one problem is addressed, for example, [dyslexia](#) (without considering other developmental, behavioral and emotional, medical, and environmental factors, we may not see a significant improvement.

Evaluation

The first step in evaluating learning and behavior problems is to determine the degree of impairment and its impact on a person's quality of life in the following areas:

- academic and work performance
- behavior and emotional regulation
- social relationships
- health

A child may experience impairment in one or more of these areas. For example, a child who has a reading problem may also struggle with behavior difficulties and social interactions. One way to determine the area or areas of difficulty is to ask the following questions:

- How is the child doing in school? (i.e., consider strengths and weaknesses)
- How much are behavior and emotional control a problem?
- How does the child get along with other children?
- Are there any medical problems?

Contributing Factors

The four main factors to consider when diagnosing coexisting conditions in learning problems are

1. developmental,
2. behavioral and emotional,
3. medical,
4. and environmental

Developmental Factors (Learning Style)

When we evaluate the child's learning style we are trying to ascertain the student's overall academic potential (IQ), learning style (processing), and level of skill in the three main academic performance areas: reading, writing, and arithmetic. Eighty percent of learning problems are due to

[language disorders](#), [dyslexia](#) being the most common affecting reading and writing. Other developmental factors affect learning, as well, such as delays in fine motor control, visual perceptual skills, and executive functions, to name a few. Delays in fine motor control can cause handwriting problems such as [dysgraphia](#).

[Visual perceptual problems](#) can result in math difficulties and may have an impact on content areas such as geography, physical education/sports, reading, writing, and art. Other developmental skills that affect learning fall under the general term [executive functions](#). Students with delays in executive functions may experience problems with time management and general organizational skills. At least 25-30% of persons with dyslexia also have [attention problems](#).

Behavioral and Emotional Factors (Behavioral Style)

Some of the most frequent coexisting conditions associated with dyslexia and other learning disorders are related to [behavior and emotional problems](#). Behavior and emotional problems can be classified into three major types of disorders: internalizing, externalizing, and atypical. We refer to a behavior or emotional problem as a disorder when the symptoms cause impairment in the child's school work, behavior and emotional regulation, social relationships, or health.

Internalizing disorders is a term used to describe the behavior of persons who tend to be quiet, withdrawn, shy, nervous, and sad. These symptoms tend to be bothersome to the individual rather than the persons around them. Common diagnoses in this category include [generalized anxiety disorder](#) and [depressive disorders](#).

Externalizing disorders refers to acting out behaviors directed at others. These behaviors include defiance, aggression, refusal to accept responsibility for one's actions, and delinquent behaviors, to name a few. Examples of these diagnoses include [oppositional and defiant disorder](#) and [conduct disorder](#).

Atypical disorders describe behavior syndromes resulting from the quality of the symptoms, rather than the quantity. That is, it is not how many or how severe the symptoms are as much as *how different* they are from what is usually seen. In pediatrics the [autistic spectrum disorders](#) are the most common.

Medical Factors

Medical problems fall into three general categories. The first category would be those medical conditions that are often associated with behavioral and developmental disorders such as [enuresis](#), [encopresis](#), and [sleep disturbances](#). Children with [Tourette syndrome](#) often experience problems with attention, anxiety, and obsessive symptoms.

The second category includes those factors that occur as a result of a chronic illness or the unintended result of a medical treatment. Certain side effects of commonly used medications for conditions such as asthma and seizures often have behavioral side effects. Sleep, for example, is frequently affected by illnesses and/or their treatment.

The third category is medical problems. Many medical conditions can affect a child's behavior and

developmental performance. Some of them are rare chromosomal disorders, such as [fragile X syndrome](#), [Williams syndrome](#), and [Turner syndrome](#) but in most cases we cannot identify a specific medical cause for these problems.

Environmental Factors

A child's environment plays a critical role in his or her life. The extent of its influence depends on the child's age and the medical, behavioral, and developmental factors previously described. A mismatch of skills and developmental expectation can lead to poor school and work performance and can exacerbate emotional and behavioral symptoms.

The most influential environments in a child's life are peers, school, and home. Prior to the age of 12 or 13 years, the home and school environments have the most dramatic impact. In the *home* environment it is important to consider the parent's temperament, discipline effectiveness, and environmental stress. The first two factors are intrinsic to the parent's nature. Stress, however, is external and will affect all family members equally. Situations such as a change in a job, relocating, financial difficulties, the birth of a child, the death of close relative, and marital problems are some of the factors that can cause stress in a home.

The impact of the school environment depends on the age of the student. When the child is young, the teacher's temperament and the physical characteristics of the learning environment (e.g., classroom layout) will affect how they learn. However, after the third grade, the curriculum demands become the most important factor in determining the child's academic success.

The developmental expectations that school places on a child from kindergarten to the 12th grade can be divided into three general stages: literacy, general education, and preparation for college.

The literacy stage occurs during the early elementary grades (K-3rd) when the child is expected to learn to read, write, and master basic math facts. A child with [phonemic awareness](#) delays may experience problems with reading and spelling early on because the developmental expectations of the school do not match the child's neurodevelopmental skills.

The general education stage occurs between the 4th and 8th grades. During this time, schools expect children to apply the basic academic skills acquired in the early elementary grades. For example, children are expected to read to learn rather than learn to read. The demands for written output will most likely double between the 3rd and 4th grades, and the child will learn long division, fractions, decimals, and percentages. During this stage, it is expected that basic academic skills learned during the primary elementary grades are fully automatic or fluent and can now be applied to learn new concepts and produce school work. The acquisition of general knowledge (e.g., history, science, and arts) is the main goal of this educational stage. The students are expected to have well developed [executive functions](#) that will allow them to work independently.

By the time these children enter middle school they are required to master the organizational skills needed to meet the demands of multiple teachers while at the same time coping with the emotional and physiological complexity of the early stages of [adolescence](#) when their *peer group* becomes the most influential aspect of their environment.

The third stage in education is high school, and its primary goal is the preparation for higher education. During this period, students learn more about discrete areas of knowledge. For example, they have subjects such as American history and world history rather than social studies. The expectations for self direction and the development of skills that will be critical for mastering higher education and early adult life increase dramatically during this stage.

Putting It All Together

When parents are confronted with the challenge of having a child with a developmental or behavior problem, it is important that they identify the different factors that combine to affect the child's quality of life and to determine the best way to manage them. The next issue of *Dyslexia Matters* will include the second part of this article about the educational, psychological, medical, and environmental interventions for managing coexisting conditions in learning problems.

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Dr. Tridas will presenting a Keynote Address and leading a Break-out Session at the Dunn Institute's Learning Differences Awareness Conference on October 24, 2009 at Providence College. Registration begins on September 1 at www.dunninstitute.org