What's Wrong With My Child?
An overview of attention deficit disorder

By Julia Rosien This article appears courtesy of www.iParenting.com.

His room looks like a bomb exploded in it. Grades plummet as he spends an entire evening on 10 minutes of homework. Routine tasks, such as picking up his clothes, waiting his turn and remaining seated, become increasingly impossible. Your child's frustration mounts as teachers expect him to cope with more independent tasks. His behavior begins to adversely affect his social, school and home life. Suddenly his teachers, his school counselor and other parents thrust an acronym upon you: ADHD. But what is it and how do you know if your child has it?

"Attention Deficit Disorder [ADD] or Attention Deficit Hyperactivity Disorder [ADHD] doesn't just appear in adolescence, though this is the time many are identified," says Terry Matlen, MSW, ACSW, a psychotherapist in Birmingham, Mich. Boys lead the ranks in the numbers diagnosed, but girls trail close behind. The disorder affects 3 percent to 5 percent of school age children, according to Children and Adults with Attention Deficit Hyperactivity Disorder. The current name, Attention Deficit Hyperactivity Disorder, reflects the inattention and distraction aspect of the disorder as well as hyperactivity and impulsivity.

The Symptoms
"The hallmark symptoms of ADHD include distractibility, procrastination, hyperactivity, or in some cases the opposite -- sluggishness, inattention and disorganization," Matlen says. Children with ADHD find it hard to sit through lecture-style classes. They daydream, fidget or pass notes instead of listening. Their grades, never at the top of the curve, now swing lower as behavior issues escalate. They often lose personal items, flit from activity to activity and go from being gregarious to reserved overnight, Matlen says. "My grandson tries to do too many things at once and accomplishes nothing," says Jan Bailey of Norwalk, Calif. "During homework time, he talks on the phone, plays with Legos, looks at his novel, studies a bug crawling up the window or anything else that catches his eye. Like most children with ADHD, he's moodier than other kids his age, falling asleep and waking with difficulty."

A child with ADHD often spends his day fighting with friends. "They act without thinking, do silly things to get attention and misread or misjudge social cues," says Jerome Schultz Ph.D., clinical director and neuropsychologist at Lesley University in Cambridge, Mass. Yet social isolation from peers leads to low self-esteem and depression, he says.

Making a Diagnosis
Every child exhibits some of these behaviors at one time or another. However, for a child to be diagnosed with ADHD, his symptoms must be more frequent or severe than in other children of the same age. Symptoms must affect the ability to function in daily life and persist for an extended period. In addition, the behaviors must create significant difficulty in at least two areas of life, such as home, social settings, school or work.
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This article appears courtesy of www.iParenting.com.

It's important to rule out allergies and other factors that could make a child “look” like he has ADHD, Matlen says. "If your family doctor finds nothing physically wrong, then it's time to ask for a referral to an expert trained in diagnosing neurological disorders."

The disorder is believed to be caused by a difference in brain tissue or by disturbances in the production or use of certain brain chemicals, says Schultz. “Which is why it’s so important to see someone who specializes in the diagnosis and treatment of these disorders,” he says. It is also important to know how the disorder affects each child so that appropriate strategies can be used. "The method of treatment will be different for a child who is inattentive, but not hyperactive,” Schultz says.

Treatment

Studies show that untreated ADHD in childhood can lead to significant problems later in life, including substance abuse, dropping out of school and anti-social behavior, says Matlen. "They get involved in drinking and drugs at an early age as a way to self-medicate the ADHD or to handle social loneliness," she says. After evaluation and diagnosis, parents need to make a decision about treatment, which can be as frustrating as the disorder itself. "It's not a matter of behavior management over Ritalin,” Schultz says. “Home and classroom environments should be modified to provide as much structure as possible before medication is tried.”

Steve Metz, father of a child with ADD in Manalapan, N.J., encourages parents to demand full testing and an Individual Education Plan for their child. "Present the school with a clear and precise diagnosis,” Metz says. “Tell them what your child needs and what you expect. Learn what your child's rights are under state and federal law, and come up with a game plan to secure rights involving special education.” Parents also can try behavior modification, which attempts to alter behavior through providing positive reinforcement. "It begins by using something tangible like stickers, food or tokens given to reward desired behavior,” Schultz says. “Gradually, as behavior changes, parents can offer less tangible rewards such as computer or TV time.” The ultimate goal is to phase out the need for reinforcers, and have the child exhibit the behavior because he sees it as helpful or desirable, he says. "Medications may be suggested, but they should never constitute the entire treatment program,” Matlen says. If a doctor suggests a drug like Ritalin, Cylert or Adderall, it's important to understand that drugs don't offer a miracle cure. By toning down the child's need to be constantly on the go, medication allows time for him to work on behavior issues in a positive way, Matlen says.

Controversy surrounding whether or not to medicate confuse and frustrate parents and caregivers. Antidepressants, antihypertensives, stimulants and depressants are all used for ADHD, either alone or in combination with one another. Parents should discuss pros and cons with their doctor or mental health professional before using any medication.

Some parents turn to “natural” or “herbal” remedies. Yet these are not screened or monitored by the FDA, making it impossible to measure potency, says Matlen. "There have been no studies that show that 'natural' remedies work in treating ADHD, and parents should understand that natural remedies can have just as dangerous side effects as prescriptions,” she says. Medication won't solve a child's problems, but learning how to deal with the disorder empowers him to succeed. "Parents form the first line of defense,” says Metz. “They must set parameters of acceptable behavior and provide a caring environment in which ADHD is understood and adaptations can be made as needed.”

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AFNIC is providing some links to keep everyone updated on the new Idea 2004 law

Resource links below

http://www.wrightslaw.com/idea/pubs.htm
Language Skills Key For Autistic Children

Impaired communication is one of the defining characteristics of children with autism. Many of these children do not speak at all and often withdraw when approached by another person. This is a problem because they can't ask for things they want or need.

This limitation, and the frustration it causes, can negatively affect their relationships with others and lead to problem behaviors such as tantrums, hitting and hyperactivity. A well-designed program to develop and improve language and communication for children with autism should, therefore, be one of the most important intervention goals for special educators and parents.

To address language problems, it is necessary to directly teach the skills these children are missing. Instruction should begin as early as possible and be as intensive as possible. More progress is likely to occur if the child is in a language-based environment in which language is the key feature of the program and is a part of all activities, including self-care and play. Other components of a successful program include:

Individual assessment that pinpoints current ability and identifies missing skills.
A curriculum that progresses to more complex forms of verbal behavior.
A foundation in applied behavior analysis.
Collecting data daily to determine progress.
Targeting speech, but also using sign language and picture exchange systems.
A fun and rewarding learning environment that encourages cooperation with the instructor.
Creating opportunities for language and focusing on a variety of verbal behaviors.
A separate learning area, away from the distractions of other children.
Staff who are trained in language instruction techniques, including the use of shaping, prompting and positive reinforcement.

Below are listed the types of verbal behavior and examples of annual goals that should be part of the program curriculum. This information is based upon the work of Mark Sundberg and James Partington and is the foundation of May Institute programs in Western Massachusetts.

Requesting: Teach the child to use language to request items he or she wants. We begin by teaching the child to point, sign, use a picture, or speak. To encourage requesting, we use each child's particular favorite rewards that are not available at other times, such as pretzel pieces, bubbles or a special book. A typical goal is to teach the child to request up to 10 different items.

Motor imitation: A child will learn many skills if he or she can readily copy an adult's actions when told, "do this." We often start by teaching the child to clap, open a book, stack two blocks and shake a maraca. We will work on as many as 50 different imitations.

Vocal imitation: Once progress is made in motor imitation, we add in imitation of mouth movements and small sounds.

Vocalizations: Speech is the most desired response. Every effort should be made to reward any vocalizations the child makes with attention, physical contact or other special items.

Receptive language: We want the child to listen to, understand and respond to the language of others. Therefore, we encourage him or her to follow instructions such as "stand up," "jump," "come here" and to point to items and pictures. Our goal is to teach the child more than 200 words.

Labeling: Similarly, we want the child to state the name of items. We select words that are important to him or her and work towards 200 words.

Advanced responses: After a child learns about 50 words receptively and with labeling, we begin to teach the functions of items (what you can do with an item), the features of items (size, color, texture) and their general categories (animals, foods, clothing).

When a child has mastered the skills listed above, we encourage him or her to participate in conversations with other people. Helping children with autism develop the ability to converse with others and make their needs and feelings understood is vitally important to improving their overall quality of life.

Alan Harchik, Ph.D., is senior vice president of the May Institute, which operates schools for children and adolescents with autism and other developmental disabilities in Arlington, Braintree, Chatham and West Springfield.
New insight into brain and speech promises help for learning disabilities
Public release date 4-apr-2005 www.northwestern.edu

Evanston, Ill. --- Learning disabilities such as dyslexia are believed to affect nearly one in 10 children. To better study them, a Northwestern University research team has developed a data-driven conceptual framework that links two well-established scientific concepts. In doing so, they also have developed a non-invasive diagnostic tool called BioMAP that can quickly identify children with learning disabilities. Scientists have long recognized that children who can best process various aspects of the sounds of language are more likely to read earlier and develop into better readers and writers than those who cannot. After a decade of research, Northwestern Professor Nina Kraus and her colleagues have discovered a subset of learning disabilities that results from a dysfunction in the way the brainstem encodes certain basic sounds of speech.

In an article in the April "Trends in Neurosciences," Kraus, who is Hugh Knowles Professor of Communication Sciences and Neurobiology, and senior research analyst Trent Nicol for the first time ever have linked the source-filter model of acoustics with the cerebral cortex's "what" and "where" pathways via the auditory brainstem. The research they present in "Trends" represents the theoretical underpinning for BioMAP, the simple neuropsychological test that can identify children with sound processing disorders. Kraus's laboratory, in partnership with Bio Systems Corp., will soon make the diagnostic tool available in the marketplace.

BioMAP objectively measures whether a child's nervous system can accurately translate a sound wave into a brain wave. If it cannot, the affected individual -- like nearly a third of the language-disordered children Kraus has studied -- demonstrates problems in discriminating speech sounds that interfere with normal learning. Once identified, children with these problems will be able to improve their speech discrimination skills through auditory training.

Early in her work -- because the deficits she was exploring related to the complex processes of reading and writing -- Kraus studied how the cortex, the part of the brain responsible for thinking, encoded sound. She and her colleagues now understand that problems associated with the encoding of sound can also occur earlier and lower in the auditory pathway in the brainstem. After analyzing years of data, they have discovered that, when recorded, the brain waves generated at the brainstem level in non-learning disabled children can look almost identical to the sound wave itself. In contrast, the brain waves of language-impaired children look somewhat different from the sound wave, showing evidence of what Kraus calls a "jitter" in the encoding process.

"We record the averaged activity of large numbers of neurons," Kraus explains. "If the neurons are not firing when they should, the response gets blurred." She has found a "jitter" in the brainstem's filter-class response (its response to the linguistic content of a sound wave) while its source-class response (its response to the non-linguistic aspects of speech, such as intonation, emotion, pitch and inflection) appears normal.

"What's compelling is that we can actually see the neural response from the brainstem to a given acoustic signal," says Kraus. And they can see it both in terms of the nonlinguistic aspects and linguistic characteristics of sound waves. In contrast, when she was recording cortical waves, Kraus had to infer that the electrical activity measured was linked to the characteristics of sound.

Now she can see what the sound wave looks like compared to the brain wave, separating the filter and source response. With funding from the National Institutes of Health, Kraus pays her young subjects five dollars an hour -- ample compensation for the 8- to 12-year-old youngsters -- for participating in achievement assessment, listening skill activities and, most important, the brain related research.

For the latter, non-invasive electrodes are placed on the subjects' scalps and an earpiece delivers carefully crafted acoustic sounds in one ear. While her subjects contentedly watch a video, Kraus measures the brains' response to these sounds. Brain activity is recorded by monitoring electricity given off by the nerves in the brainstem at a "pre-attentive" level.

"What makes this translate perfectly into a diagnostic tool is the fact that we don't have to ask our subjects to follow any directions or engage them in specific tasks," says Kraus. "We simply measure an automatic function of the nervous system while a child watches TV."

Kraus expects BioMAP to become part of the arsenal of tools used by specialists in learning disabilities. What's more, by linking two basic principles of neuroscience and sensory systems -- the acoustic source-filter model with the 'what' and 'where' cortical pathways -- she and her team are providing researchers with a new way to think about how the brain processes speech in general and how, in particular, the diagnosis and remediation of learning disorders can be improved.
Motivation Problem or Hidden Disability?
Meredith G. Warshaw, M.S.S., M.A. Special Needs Educational Advisor
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So often we are told, "your child's so smart - she could do that if only she'd try" or "he has a motivation problem". The children in question may get sullen or angry or depressed; they may cry or insist that "I can't" or "it's too boring". As parents, it hurts us to hear these things about our children, to question our parenting skills, and wonder why our children are not cooperating in school. But there's often more here than meets the eyes.

In my experience, a large proportion of children who look like they have "motivational problems" have undiagnosed special needs. A few of the hidden disabilities that can make children seem like they "would rather stare at the ceiling than do serious work" are auditory processing problems, ADHD/inattentive type, executive function problems, and dysgraphia.

1. Auditory processing problems
Auditory processing problems won't show up on the standard hearing tests, since the problem is not the ability to hear sounds, but the ability to process verbal information. People with auditory processing problems may understand spoken information easily in a one-to-one situation with no background noise and a clear view of the speaker's lips, but have trouble in a crowded classroom or playground. They often seem like they aren't paying attention because they misunderstand questions and have trouble following multi-step instructions. Imagine how difficult it would be to have all your lessons in a crowded bar with a rock band playing in the background - that's what school is like for these kids. Children with auditory processing problems need to receive instructions in writing, not just auditory.

2. ADHD/inattentive type
ADHD/inattentive type often goes undiagnosed because the symptoms are subtle. As with the child with auditory processing problems, the child with ADHD often misunderstands questions and has trouble following multi-stop instructions, only in this case it is because it is impossible for the child to sustain attention. It is very important to understand that the lack of attention is not due to lack of willpower, rudeness, boring teaching, or willful disobedience. Like children with auditory processing problems, children with ADHD need to have instructions presented in writing.

3. Executive function problems
Children with ADHD, non-verbal learning disability, and some other special needs, have problems with "executive function" - the ability to plan and organize. These are the children who are always losing their homework, whose desks are disaster areas, and who may not be able to write a coherent, well-planned paragraph. They need help learning to be more organized. Too often, they are expected to take responsibility for being organized before they are able; these children need explicit instruction in organizational methods, help checking each day if they have their assignments, and hand-holding in getting started on writing assignments. Again, this is not a matter of "not caring" or "willfulness" (although it can look that way if a child has gotten too discouraged over the years).

4. Dysgraphia
Kids with dysgraphia (written language disabilities) may have trouble with the mechanics of writing. They are often able to write letters when copying slowly, but lack the automaticity necessary to write fluently while thinking about content; they may be able to draw even though they have problems with writing - the problem is that they are "drawing" their letters. These kids may seem like they are stubbornly refusing to write when it is truly too difficult for them. For kids with dysgraphia, it is important to disentangle the mechanics from generation of content. Let them use dictation at first, then progress eventually to keyboarding. This allows them to learn how to share their ideas without their physical limitations getting in the way.

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Originally published in the newsletter of the Association for the Education of Gifted Underachieving Students. ([http://www.aegus1.org](http://www.aegus1.org))
Genetic cause of speech defect discovered
Discovery could lead to isolating genes important for expressive language development

Source: Science Daily Magazine/University of Toronto Oct 20/05 by Karen Kelly

Researchers at the University of Toronto (U of T), Capital Health’s Stollery Children’s Hospital in Edmonton, Toronto’s Hospital for Sick Children and their international collaborators have discovered a genetic abnormality that causes a type of language impairment in children – a discovery that could lead to isolating genes important for the development of expressive language.

A study published in the Oct. 20 issue of the New England Journal of Medicine outlines the discovery of a genetic abnormality in a nine-year-old boy with learning difficulties and speech problems from northern Alberta. By using some of the latest genetic screening methods designed to look for differences in the amount of DNA in particular chromosomes, the researchers discovered that the boy carries additional copies (termed duplication) of around 27 genes on chromosome 7. This is only the second instance of the identification of a single chromosome region linked to specific language impairment. The boy can understand what is said to him at the level of a seven-year-old but his expressive language and speech are at the level of a two-and-a-half-year-old. “Our results show that changes in the copy number of specific genes can dramatically influence human language abilities,” says senior author Lucy Osborne, a U of T professor of medicine. “Based on our findings, we are expanding the study to assess the frequency of this DNA duplication in children with expressive language delay.”

The chromosome 7 region that is duplicated in this boy is exactly the same as that which is deleted in Williams-Beuren syndrome (WBS), a neurodevelopmental disorder. While patients with WBS exhibit mild mental retardation, they also have strength in expressive language, alongside very poor performance in tasks involving spatial construction, such as drawing. In striking contrast, this patient could form virtually no complete words but showed normal spatial ability. “For example, if asked to tell us what animal has long ears and eats carrots, he could only pronounce the r, of the word rabbit but was able to draw the letter on the blackboard and add features such as whiskers,” Osborne says.

This mutation – an addition of 1.5 million DNA base pairs – was predicted several years ago to exist by Osborne and her collaborator Stephen Scherer of The Hospital for Sick Children and U of T. “While estimated to be present in more than a half million people worldwide, the duplication has evaded detection since the disease was unknown until now, but also because finding this type of mutation is technically challenging,” explains Martin Somerville, director of the Molecular Diagnostic Laboratory at the Stollery Children’s Hospital. Uncovering the duplication sheds light on which genes are necessary for normal expressive language. “Language impairment was thought to be caused by the interaction of multiple genes on different chromosomes, but in this case our discovery implicates a specific location on chromosome 7,” Somerville says. “In order to know how to treat a disease you have to know its cause, so this is a significant step in the right direction.”

Other authors on the study are Edwin Young and Wayne Loo, Institute of Medical Science and Department of Molecular & Medical Genetics, University of Toronto; Stephen Bamforth and Margaret Lilley, Department of Medical Genetics, University of Alberta; Carolyn Mervis and Ella Peregrine, Department of Psychological and Brain Sciences, University of Louisville; Miguel del Campo and Luis Pérez-Jurado, Unitat de Genètica, Departament Ciències Experimentals i de la Salut, Universitat Pompeu Fabra, Barcelona; and Colleen Morris, Department of Pediatrics, University of Nevada School of Medicine; and Eul-Ju Seo and Stephen Scherer, Program in Genetics & Genomic Biology, The Hospital for Sick Children, Toronto and U of T. This study was supported by grants from the Canadian Institutes of Health Research (CIHR) and the Sick Kids Foundation, the Spanish ministries of health and science and technology, Genome Canada/Ontario Genomics Institute, the National Institute of Neurological Disorders and Stroke and the National Institute of Child Health and Human Development. Scherer is a CIHR investigator and an international scholar of the Howard Hughes Medical Institute. Osborne is a CIHR research scholar.

Source: Science Daily Magazine/University of Toronto This story has been adapted from a news release issued by University of Toronto. All contents copyright ©2004, 2005, University of Toronto. All rights reserved.
Researchers at Yale Identify a Genetic Link to Tourette’s Syndrome
FOR IMMEDIATE RELEASE: October 12, 2005

New Haven, Conn. — In what may be a major milestone in Tourette’s Syndrome (TS) research, scientists at Yale School of Medicine and their colleagues have identified a gene called SLITRK1 that appears to contribute to some cases of TS, according to a report in the October 14 issue of Science.

“We now have rare mutations, expression and functional data, all supporting a role for this gene in Tourette’s Syndrome,” said senior author Mathew State M.D., Harris Assistant Professor in the Yale Child Study Center and in the Department of Genetics at Yale. “This finding could provide an important clue in understanding Tourette’s on a molecular and cellular level. Confirming this, in even a small number of additional TS patients, will pave the way for a deeper understanding of the disease process.”

TS is a relatively common neurological disorder characterized by tics—involuntary, rapid, sudden movements or vocalizations that occur repeatedly in the same way. It affects as many as one out of 100 school age children. The tics begin in mid-childhood and peak at the start of adolescence. TS is not life threatening, but affected children commonly have other neuropsychiatric disorders including ADHD, obsessive-compulsive disorder or depression. State said TS patients swearing uncontrollably is actually uncommon, with only a small percentage of TS patients ever having this symptom.

For years, many researchers sought a single, abnormal gene for TS. Since none was found, it was concluded that multiple genes either cause or contribute to the disorder. While many researchers looked for genetic similarities among large groups of TS patients, State and his team took the opposite approach pioneered by co-author and Yale’s Chair of Genetics, Richard Lifton, M.D., of searching for unusual patients with TS. With help from the Tourette Syndrome Association, they found such a case in which a child had TS and carried a chromosomal abnormality.

Working with Yale neurobiologists and co-authors Nenad Sestan and Angeliki Louvi, the team used molecular methods to identify differences in that child’s DNA. In particular, they found one gene expressed in the brain near the chromosomal break point. They compared the gene to a wider TS population of 174 people. The team found an abnormal DNA sequence in one family and the identical, very rare change in the DNA sequence in two unrelated people. This second finding was in a non-coding region of the gene that does not directly make protein.

A lead author on the study, graduate student Kenneth Kwan made the key observation that this segment of the gene was likely to be involved in gene regulation through the interaction with small molecules called microRNAs. In a series of experiments, the research team found that this was indeed the case. The study was supported in part by the National Institute of Neurological Disorders and Stroke and the National Center for Research Resources.

Other Yale authors who worked with researchers from several other institutions included Jesse F. Abelson, Brian J. O’Roak, Danielle Y. Baek, Althea A. Stillman, Thomas M. Morgan, Mladen-Roko Rasin, Nicole R. Davis, A. Gulhan Ercan-Sencicek, Daniel H. Guez, James F. Leckman, M.D., and Anita Farhi.

Is your IEP appropriate, some facts below may alarm you?

Parents of disabled children understand one crucial fact—that only by obtaining an appropriate education will my child have a real opportunity to lead a fulfilling, productive life. Unfortunately, statistics about the outcomes of special education programs will not alleviate your concerns. Researchers have found that most special education programs fail to confer adequate educational benefit to many of the youngsters they are designed to serve.

The statistics are sobering: 74% of children who are unsuccessful readers in the third grade are still unsuccessful readers in the ninth grade. (Journal of Child Neurology, January 1995) Only 52% of students identified with learning disabilities will actually graduate with a high school diploma. Learning-disabled students drop out of high school at more than twice the rate of their non-disabled peers. (Congressional Quarterly Researcher, December, 1993) At least 50% of juvenile delinquents have undiagnosed, untreated learning disabilities. (National Center for State Courts and the Educational Testing Service, 1977) 31% of adolescents with learning disabilities will be arrested within five years of leaving high school. (National Transition Longitudinal Study, 1991) Up to 60% of adolescents who receive treatment for substance abuse disorders have learning disabilities (Hazelden Foundation, Minnesota, 1992) 62% of learning disabled students were unemployed one year after graduation. (National Longitudinal Transition Study, 1991) A meaningful education will help turn these figures around.
Treatment of PDDNOS (Pervasive Development Disorder Not Otherwise Specified)

On the whole, children with PDDNOS share the social and communicative disabilities found in children with Autistic Disorder. They often need services or treatments similar to those provided to children with autism.

Traditional Methods
No one therapy or method will work for all individuals with Autistic Disorder or PDDNOS. Many professionals and families will use a range of treatments simultaneously, including behavior modification, structured educational approaches, medications, speech therapy, occupational therapy, and counseling. These treatments promote more typical social and communication behavior and minimize negative behaviors (e.g., hyperactivity, meaningless, repetitive behavior, self-injury, aggressiveness) that interfere with the child's functioning and learning. There has been an increasing focus on treating preschool children with PDDNOS by working closely with family members to help the children cope with the problems encountered at home before they enter school. Many times, the earlier these children begin treatment, the better the outcome.

Addressing behavior issues
As children with PDDNOS struggle to make sense of the many things that are confusing to them, they do best in an organized environment where rules and expectations are clear and consistent. The child's environment needs to be very structured and predictable. Many times a behavior problem indicates that the child is trying to communicate something--confusion, frustration or fear. Think of the child's behavior problem as a message to be decoded. Try to determine the possible cause of the behavior. Has the child's routine or schedule changed recently? Has something new been introduced that may be distressing or confusing the child? When a child's communication skills improve, behavior problems often diminish--the child now has a means of expressing what is bothering him or her, without resorting to negative behavior.

The use of positive behavioral support strategies for these children has proved effective. It is important to remember that:
1. Programs should be designed on an individual basis, because children vary greatly in their disabilities and abilities. Treatment approaches that work in certain cases may not work in others.
2. Children with PDDNOS have difficulty generalizing from one situation to another. The skills they have learned in school tend not to be transferred to the home or other settings. It is very important to be consistent in the treatment of a problem across all areas of the child's life--school, community, and home. This encourages generalization of behavior changes.
3. A home-community-based approach, which trains parents and special education teachers to carry out positive behavioral support strategies, can be instrumental in achieving maximum results.

Appropriate educational program
Education is the primary tool for treating PDDNOS. Many children with PDDNOS experience the greatest difficulty in school, where demands for attention and impulse control are virtual requirements for success. Behavioral difficulties can prevent some children from adapting to the classroom. However, with appropriate educational help, a child with PDDNOS can succeed in school. The most essential ingredient of a quality educational program is a knowledgeable teacher. Other elements of a quality educational program include: structured, consistent, predictable classes with schedules and assignments posted and clearly explained.

- information presented visually as well as verbally;
- opportunities to interact with non-disabled peers who model appropriate language, social, and behavioral skills
- a focus on improving a child's communications skills using tools such as communication devices
- reduced class size and an appropriate seating arrangement to help the child with PDDNOS avoid distraction
- modified curriculum based on the particular child's strengths and weaknesses
- using a combination of positive behavioral supports and other educational interventions; and
- frequent and adequate communication among teachers, parents, and the primary care clinician.

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College Planning for Students with Learning Disabilities


High school personnel, as well as students with learning disabilities and their parents, are often frustrated in searching out a suitable postsecondary setting that will afford opportunity for success. While there are many directories of postsecondary college programs (Hartman & Kruulwich, 1984), they often result in more confusion than clarity. Since there is no consistent pattern of programming for students with learning disabilities at the college level, selecting an appropriate college is often an overwhelming task. Since there are many more colleges seeking, or at least admitting, students with learning disabilities than actually have well developed programs, it is imperative that professionals help these students act cautiously during the selection and application process. Simply finding a "good" program or the one with the most services is not the solution. A match must be made between the unique needs of the student and the characteristics of the college and its learning disabilities program (McGuire & Shaw, 1987).

Developing An Appropriate Individualized Educational Program (IEP)

A critical element of an effective high school program is determination of which curricula and courses will be taken by students with learning disabilities. Too often, these students are counseled into a general studies curriculum that will disqualify them from admission to most 4-year colleges. In addition, many students with learning disabilities receive course waivers -- often for foreign language or mathematics -- which can significantly limit college options. Course waivers may be necessary and appropriate, but they should be provided only when based on valid diagnostic data. Furthermore, all parties should be made aware of the implications of waivers for postsecondary education. Although the college experience is often difficult for students with learning disabilities, pacing of a course of study has proved to be an effective programming variable (Norlander, Shaw, McGuire, Bloomer, & Czajkowski, 1986). A student who might experience frustration and failure with a full college course load might be successful when taking only two or three courses. Likewise, if high school personnel, parents, and students were open to planning a 4 1/2- or 5-year program, the students would be more likely to leave high school with the skills, content, knowledge, and positive self-concept necessary for postsecondary success. The individualized educational program or transition plan for a student with learning disabilities should provide for an early determination of postsecondary goals agreeable to all concerned and specification of the curriculum, courses, time sequence, and support program appropriate for realization of those long-term goals. The goals will require continual monitoring and adjustment throughout the high school program as the student's postsecondary and career choices become refined.

Special Skills For College-Bound Students

The postsecondary environment is much less structured than most high school settings, requiring a great deal of responsibility on the part of students to determine what to learn as well as how and when to learn. Students with specific learning disabilities are often left confused unless they are specifically instructed in skills such as evaluating courses, planning long-range study time, and interacting with faculty. The high school setting does not typically provide the opportunity to practice such skills. Special educators, in collaboration with content teachers and counselors, must provide their students with simulated college experiences that incorporate these skills.

Potential Areas of Interpersonal Problems

Students with learning disabilities often have serious interpersonal problems in the dormitories and negative interactions with professors as they seek help or ask for accommodations. In the college setting, where students are expected to be independent and function as self-advocates, these problems soon become apparent. Many students with learning disabilities are unable to perceive intuitively the verbal and nonverbal cues that identify appropriate behavior in various social situations. Families and teachers of these students often shelter them from potentially stressful or threatening social situations and thereby prevent them from developing the social skills they need to function successfully in the outside world. The frequent inability of these students to maintain healthy and cordial relations with their friends and with adults reflects their poor social skills development.
Characteristics of the Postsecondary Institution
High school counselors are skilled at helping typical students select colleges. However, a student with learning disabilities needs more diverse and detailed information from high school personnel than do typical students. Such a student needs to investigate admissions procedures carefully. How he or she compares to the typical entering student in terms of preparation and performance is critical in preventing a frustrating and possibly short-lived college experience. A number of academic considerations are also critical for a student with learning disabilities. The availability of precollege courses, developmental and remedial courses, and course waiver provisions is essential information. The size of the institution itself, as well as the size of classes (particularly the number of large lecture classes) may be especially important to a student who has any of the social or interpersonal problems noted earlier.

The Learning Disabilities Program
Once a student's personal strengths and weaknesses have been evaluated and the elements of appropriate postsecondary institutions have been considered, it is time to examine specific support services. A student with specific disabilities in mathematics might not require support services if the postsecondary institutions of choice do not require coursework in this field. On the other hand, a student who has achieved in modified high school classes without support services might require extensive assistance in a competitive academic university program. The same student might continue to manage independently in an open-enrollment, 2-year college with a vocational-technical focus. Secondary personnel must help each student analyze his or her specific needs and match them with the availability and quality of support services available.

Making the Final Selection
Once the general characteristics of appropriate settings have been determined, the list of serious choices should narrow to five or so good candidates. The schools must then be contacted, interviews arranged, and family visits planned. Campus tours and the opportunity to sit in on classes must be given particular attention, since it is extremely important for a student who has a learning disability to personally judge the level of difficulty of the instruction, observe the interaction of the students, and gain for himself or herself a sense of the relationship between the students and the faculty. The admissions interview may not answer all the questions regarding programs for students with learning disabilities. If it does not, the student and parents must seek out and meet with a member of the learning disabilities program staff. A list of questions based on family concerns and perhaps stimulated by a review of college directories and guides or discussions with high school guidance personnel should be prepared prior to the visit.

- Questions might include the following:
  - What type of support is available for students with learning disabilities?
  - Is the program monitored by a full-time professional staff?
  - Has the program been evaluated, and if so, by whom?
  - Are there any concerns for the program's future?
  - Who counsels students with learning disabilities during registration, orientation, and course selection?
  - How does the school propose to help with the specific disability?
  - Which courses provide tutoring?
  - What kind of tutoring is available, and who does it--peers or staff?
  - Is tutoring automatic, or must the student request assistance?
  - How well do faculty members accept students with learning disabilities?
  - May students with learning disabilities take a lighter load?
  - Are courses in study skills or writing skills offered?
  - Have counselors who work with students with learning disabilities received special training?
  - How do students on campus spend their free time?
  - May students with learning disabilities take more time to graduate?
  - Whom can parents contact if they have concerns during the academic year? (Berger, 1989)

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