Three fact sheets provide parents and educators with basic information on Tourette Syndrome (TS). The first sheet is titled "Learning Problems and the TS Child" and is by Herman Davidovicz, a neuropsychologist. It notes the high frequency of attention deficit disorders and learning problems in children with TS and provides information for parents on warning signs, reasons for the learning problems, suggestions for intervention, and consideration of remedial help and regular classroom adjustments. The second fact sheet is by an educator, Susan Conners, and is titled "Specific Classroom Strategies and Techniques for Students with Tourette Syndrome." Strategies are suggested for the following areas: tic symptoms; attention deficit hyperactivity disorder problems; visual motor integration, auditory processing difficulties, and fine motor skill problems; and "short fuse" and oppositional behavior difficulties. The third sheet is by Jacqueline Favish, a special educator, and is titled "Techniques To Aid Students with TS in Completing Written Assignments." It offers suggestions for helping students with note taking, standardized tests, teacher-devised tests, and timed tests. (DB)

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Learning Problems and the TS Child

by Herman Davidovicz, Ph.D.

As a neuropsychologist I have, over the past seven years, seen more than 200 children with TS. My own experience and recent studies in the field of learning disorders indicate that about 60% of children with TS have some kind of difficulty functioning adequately in school, and 30% of these have more serious learning disabilities. Many youngsters with TS also have attention deficit disorder (ADD). Life in the classroom can be quite difficult for those who have both learning problems and ADD.

Warning Signs

In my experience those children with TS who have problems with learning really do not differ greatly from other children who have learning disabilities, but do not have TS. What is important is that parents need to be alerted to certain basic signs in their children which suggest that learning disabilities are indeed present. The most obvious of these signals are poor grades and low achievement in school. This often involves difficulty in acquiring the basic skills for learning to read, spell, write and do arithmetic.

Parents should also be aware of obvious signs of frustration in those youngsters who seem unable to cope with school work. Sometimes these children appear to be trying very hard, and yet they do not receive good grades and fail tests. In some cases, teachers may claim that the pupil is unmotivated, disinterested, or not trying hard enough. Actually, this poor performance is not the cause of the problem, but rather the result.

Sometimes parents are told that their child has difficulty maintaining attention, or doesn’t listen to or understand verbal directions or perhaps is unable to finish assigned work. With children of junior high school age, parents may observe that exams are studied for and yet passing grades are not achieved because of great difficulty with memorization or a lack of ability to complete reports, properly take notes or adequately express their thoughts in writing.

Any combination of the signs mentioned above can be an indicator of real problems with learning which, it should be emphasized, in no way reflect upon the general intelligence of the particular child.

What Is Wrong?

Parents should not readily accept vague explanations from school personnel which do not adequately explain why their youngsters are having these problems. Also, in many instances, it is incorrect to explain these problems as being the result of "emotional difficulties." It should be noted that even when youngsters do have adjustment problems (which is common among children with TS), these problems are not necessarily the cause of academic difficulties. Moreover, the presence of ADD by itself is not a sufficient explanation for poor school achievement.

The true reason why some youngsters have learning problems lies with specific patterns of cognitive dysfunction which are not uncommon in youngsters with TS. The most common patterns involve overall difficulties with both the understanding of language and with language production. Another relates to problems with understanding what is heard. In addition, there is often some dysfunction associated with processing information into memory. A smaller number of youngsters have problems with so called "visual perceptual skills."

These specific types of dysfunction can be totally independent of the child’s intelligence. I would like to emphasize that youngsters who are very bright verbally may still have problems with
auditory processing or memory or spatial skills. Also, these problems may be totally independent of the severity of TS itself — in other words, the reasons for the various learning problems can be present irrespective of the intensity of the ADD or TS.

What Can Be Done?

The first step parents should take, if they suspect a problem, is to obtain an accurate assessment — that is, an accurate diagnostic picture of your child's specific problem. Ideally, all children with TS should be seen for a neuropsychological evaluation where it is available. If this is impossible, a thorough psycho-educational evaluation can be requested directly from the school or through the local district's Committee on the Handicapped. All states are required to supply these special services for youngsters with TS.

I.Q. and achievement testing by themselves are not, in my opinion, sufficient. It is important that the youngster's language development be thoroughly tested. This should include examination of the youngster's auditory processing skills, language processing and memory skills.

Remedial Help Is Available

For youngsters of otherwise normal intelligence, but who are having severe learning difficulties, and are really not able to cope in the regular classroom, there are self-contained classes available. Most children, however, do not need this type of placement and can benefit from a "resource room." This is a special tutorial arrangement where pupils work on their specific problem areas one or more periods a day with special education teachers. A small number of children with TS may require services which can be provided only by private schools.

Regular Classroom Adjustments

Many youngsters may be in need of certain modifications in their regular classroom settings. For example, some may require a more structured classroom environment with increased monitoring. Others may need to receive special allowances for their poor handwriting or extreme restlessness. For some, total elimination of writing requirements may be in order, while others may need to actually take notes with them to exams in order to compensate for memory problems. Still others may require permission to use a calculator in the classroom, and some may have to dictate rather than write out their test answers.

It is difficult to be specific, for each child is different. However, I strongly encourage parents to explore, together with school personnel, creative solutions (specific to the child in question) which can help reduce stress and feelings of failure, thereby allowing for the greatest amount of learning to ultimately take place during the crucial school years.

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Specific Classroom Strategies and Techniques for Students with Tourette Syndrome
by Susan Conners, M.Ed.

For Tic Symptoms

Testing modifications: test in a separate location. Stress often aggravates TS symptoms and taking tests is always stressful. Waive time limits on tests.

Give the child frequent breaks out of the classroom to release tics. Send him/her to the lavatory, drinking fountain or on an errand.

Educate the other students who come in contact with the TS child. The school psychologist, the school social worker, the school nurse or an advocate from the local Tourette Syndrome Association can be helpful here.

For ADHD Problems

Many TS students have indicated that center front seating becomes a source of embarrassment because of tics. Preferential seating is advisable -- to the side and front of the classroom, away from distractions. In this way, the teacher can provide special attention for instructions/directions and enable the student to refocus when necessary.

Quiet place to work in the classroom: consider allowing student to wear headset with instrumental music in corner of the room to block out distraction.

Change tasks frequently.

Allow for freedom of movement. Often giving the child an eraser or a small squeeze toy to fidget with during times when concentration is needed, helps the child to better focus and sustain attention.

Moderate structure and routine with flexibility is the key to working with most TS children with ADHD.

Break down assignments, for example, avoid giving more than one paper/ditto at a time. One effective approach is to fold the paper in half and have the student come up to you when finished with that portion and then take a break before continuing.

Break down all the long range assignments and projects. Give shorter time frames. For example, Part I is due in two days, rather than the entire project due in three weeks. Three weeks may seem like a lifetime.

Establish a hand gesture or signal which becomes a reminder to refocus during listening periods.

Provide a daily assignment sheet to be filled out by the student, signed by the teachers and verified by parents each evening. Teacher’s signature will verify that the assignment was recorded correctly by the student.

At the end of the day, allow student to leave class 2 to 3 minutes early to pack schoolbag with appropriate materials in the hallway when he/she is alone and not disturbed by crowds of other students. When possible, have an aide, consultant teacher or resource room teacher check out the student to make sure necessary supplies are packed.

Penalizing students who constantly forget or lose supplies is ineffective. Keep a supply of pencils, paper, etc. or have parents supply these items for you to keep in a desk drawer for student when he/she forgets or misplaces them.

Having an extra set of textbooks at home is helpful so that the student need not worry about forgetting necessary books each day.

Color code texts with notebooks and folders. For example, blue science book goes with blue notebook and blue folder.

Implement a behavior modification program which will help control child’s impulsivity. TS children with ADHD often blurt out answers, leave their seats without even realizing it, and have difficulty waiting their turn. While we need to allow for some of this, the child cannot be allowed to disrupt the class and infringe upon other students’ right to learn. I assign students Bingo chips, baseball cards, or whatever the student is interested in or is appropriate to the age level. These are given each class period and removed one at a time after two or three of the above behaviors are exhibited. A reward should be given for the number of objects left each day or week. It should be noted that behavior modification techniques will not help to reduce the tics or vocalizations and may or may not be helpful for the OCD behaviors.

Reduce the length of homework assignments. For example, do every other problem or only 5 of 10 assigned questions.
For Visual Motor Integration — Auditory Processing Difficulties, Fine Motor Skill Problems

The use of a word processor
Occupational Therapy
Note taker or the use of a tape recorder
Tests administered orally
Reports given orally
Verify all homework assignments copied from the blackboard or from teacher’s oral instructions
Shortened assignments
Standardized test answers written in test booklet and recopied later onto answer paper by a teacher aide
Waive time limits on tests

Do not penalize student for poor handwriting. In elementary grades, where students often receive a handwriting grade, base grade on effort
Do not penalize for spelling errors. Encourage the use of spell check on a word processor
Use visuals and verbal directions in addition to written instructions
Give clear, simple directions one or two steps at a time. Have student repeat directions back to you
Allow the student a place to go where he/she will not disturb others to quietly repeat or go over instructions
Provide graph paper to help line up math problems

For Short Fuse and Oppositional Behavior Difficulties

Children with TS and ADHD are very easily frustrated. They live day in and day out with a disorder that never allows them to be still. Their bodies are constantly out of their control. Their bodies constantly hurt from the persistent tics. It takes very little to set these children off. They are also very easily over stimulated by large crowds, noisy situations and disorganization in the classroom. Some of the most difficult times for these children can be in the hallways between classes, in the cafeteria and on the school bus. Not only are these noisy, unstructured situations, there is also less, if any, adult supervision. Some possible interventions are:

- Allowing the child to leave the classroom 2 to 3 minutes early to avoid crowded hallways;
- Having a teacher aide nearby in the cafeteria and hallways to prevent the possibility of confrontations rather than having to break them up after they occur;
- Up front seating on the school bus;
  - Educating the bus driver:
    - If misbehavior on the school bus is especially problematic, the student may do better on a smaller bus for special education students.

Remember

TS children don’t want to be out of control. They don’t know how to avoid situations that cause this to happen. We need to help them with this lack of impulse control. This is not always an expression of bad behavior, rather it may be an expression of neurobiological disturbances.

Medications

Many TS children take medication. The majority of these medications have side effects which may effect their performance and behavior in school. It is most important for the school nurse to become involved in informing teachers not only about the medications being taken, but about the possible side effects of these medications.

Susan Conners, M.Ed., is a special education teacher, President of the Western N.Y. TSA chapter and a member of TSA’s national Board of Directors. She has Tourette Syndrome.
Techniques
to Aid Students with TS in Completing Written Assignments

by Jacqueline Favish, M.Ed.

The following are some suggestions given to us by Mrs. Jacqueline Favish, M.Ed. Mrs. Favish, who has a master’s degree in Special Education, teaches learning disabled and emotionally disturbed adolescents in a self-contained classroom. We are providing this information in response to questions from educators who have a student with Tourette Syndrome in their classrooms. Frequently, these students will have some type of learning disability as well as TS and may be experiencing considerable difficulty in completion of written work.

Standardized Tests

- In multiple choice tests where a word has to be written in, the student may have great difficulty in writing out the words.

  Assign numbers to each of the possible answers so that the student can simply write in a number for what he believes to be the correct answer.

- On machine-graded tests, where a student is to fill in boxes or color in slots, he may have difficulty in staying on the line of the question he is working on.

  Have him use a ruler or straight-edge to help carry his eye across the page to whichever answer he chooses. He will then color in that slot or box.

- In tests where several lines or a paragraph must be read, the student may have a problem in focusing visually on a question (this will vary a great deal, depending on the extent of the student’s disability).

  Use an index card that has had a “window” cut out, so that the student will see only the one question he is dealing with at a time. Then, he can use the straight-edge as a guide for writing in the answer. This technique eliminates the distraction created by seeing other questions or reading material on the rest of the page. As he works, he slides his “window” down the page progressing from question to question.

Note Taking

- When a student has a visual-motor problem, note-taking can be very difficult. In addition, many Tourette Syndrome students have arm and hand movements which interfere with writing, thus creating additional problems.

  The teacher can select one of the more capable, reliable students in the class and supply carbon paper to enable that student to make a simultaneous copy of his notes. It is sometimes wise to tell this student that the teacher needs a copy of the notes (rather than identify the student with the visual-motor problems, for whom they are really intended).
Teacher-Devised Tests

Problems in Math Computations

- Problems in dealing with space on the paper being used:

  Each problem can be isolated on a section of the student's workpaper. To promote this, fold an 8½ x 11 sheet into quarters or eighths. The student can then work one problem in each section.

  This allows him to attend to one specific problem at a time and will help separate each unit of work so that distractions are minimized.

- Problems with use of space in working math problems:

  For division and multiplication problems, use lined paper with the lines turned vertically, so that each transaction can be more easily kept in the appropriate columns.

Timed Tests

- For the student who must have unrestricted time tests:

  No matter what the standardized tests state, the student with special problems is entitled by PL-94-142 to an adjustment of time limits in the test-taking situation.*

  When unrestricted time has been allowed, this can be so noted on the test paper by the teacher, perhaps in the following manner:

  "Because of this student’s confirmed diagnosis of a handicap, this test was completed without time limitations."

*Note: Tourette Syndrome is recognized as a Developmental Disability and therefore qualified for this exception.