

# *Children with Asperger's Syndrome: Characteristics/Learning Styles and Intervention Strategies*

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**"Written by Susan Stokes under a contract with CESA 7 and funded by a discretionary grant from the Wisconsin Department of Public Instruction. "**

## *Introduction*

Asperger's Syndrome was named for a Viennese psychiatrist, Hans Asperger. In 1944 Asperger published a paper in German describing a consistent pattern of abilities and behaviors that occurred primarily in boys. In the early 1980s Asperger's paper was translated into English, which resulted in international recognition for his work in this area (6).

In the 1990's, specific diagnostic criteria for Asperger's Syndrome were included in the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders, 4th Edition (DSM-IV, 1994) as well as the International Classification of Diseases, 10th edition (ICD10) (3) & (15). In general, DSM-IV and ICD10 base their diagnostic criteria for Asperger's Syndrome on the following:

- Impairment of social interaction
- Impairment of social communication
- Impairment of social imagination, flexible thinking and imaginative play .Absence of a significant delay in cognitive development
- Absence of general delay in language development (in Wisconsin, the child may still have an impairment under the state eligibility criteria for speech & language)

Recent research establishes the prevalence of Asperger's Syndrome as approximately 1 in 300, affecting boys to girls with a ratio of 10: 1 (6). Children with clinical (medical) diagnosis of Asperger's Syndrome and whom have been identified by schools as "children with disability" have identified are typically found by the IEP Team conducting the evaluation to have an impairment in such areas as Autism, Speech/Language, or Other Health Impaired. Depending on the unique characteristics of the child, other impairment area listed under state law for special education may also be considered and used. This link will connect to the Wisconsin Department of Public Instruction for additional information on these areas:

<http://www.dpi.state.wi.us/dpi/dlsea/een/program.html>

The general features and characteristics exhibited by children diagnosed with Asperger's Syndrome are similar to the general features and characteristics exhibited by children who have been clinically diagnosed with Autism and are described as having "high functioning autism". For educational purposes, the remainder of this paper focuses on the child with Asperger's Syndrome who has been identified by the IEP Team as being a child with a disability. Much of the following information is also relevant for consideration in working with children identified as having autism and who are described as having "high functioning autism".

## *Training*

Each person who comes in contact with a child diagnosed with Asperger's Syndrome (either school staff or peers) should receive training on the unique characteristics and educational needs of such children. Due to confidentiality issues this should always be discussed first with the parents of the child with Asperger's Syndrome. Their written consent should be obtained prior to providing peer training.

### **Educational Staff Training should include the following two components:**

- **General training of the entire school staff:** Prior to working with children with Asperger's Syndrome, it is critical to understand the unique features and characteristics associated with this developmental disability. Staff should be informed that children with Asperger's Syndrome have a developmental disability, which causes them to respond and behave in a way that is different from other students. Most importantly, the responses/behaviors exhibited by these children should not be misinterpreted as purposeful and manipulative behaviors (4).
- **Child specific training for educational staff who will be working directly with the child:** Educational staff that will be working directly with a child with Asperger's Syndrome should understand his individual strengths and needs prior to actually working with the child. A team of persons familiar with the child and his disability should provide this training. The team may include previous teacher(s), speech/language pathologist, occupational therapist, teacher aide and most importantly, the child's parents.

### **Peer training:**

The peers/classmates of the child with Asperger's Syndrome should be told about the *unique* learning and behavioral mannerisms associated with Asperger's Syndrome. It is important to note that parent permission must always be given prior to such peers' training. A successful protocol for training peers at the kindergarten to approximately second grade level was developed by Division TEACCH and is available at their web site <http://www.unc.edu/depts/teacch/>. Another peer training protocol designed for children between the ages of 8-18 is Carol Gray's "Sixth Sense" (10).

## *Characteristics and Learning Styles: General*

The following characteristics and learning styles associated with Asperger's Syndrome are important to consider, particularly their impact on learning, and in planning an appropriate educational program for the child (7). Children with Asperger's Syndrome exhibit difficulty in appropriately processing in-coming information. Their brain's ability to take in, store, and use information is significantly different than neuro-typically developing children. This results in a somewhat unusual perspective of the world (7). Therefore teaching strategies for children with Asperger's Syndrome will be different than strategies used for neuro-typically developing children.

Children with Asperger's Syndrome typically exhibit strengths in their visual processing skills, with significant weaknesses in their ability to process information auditorily. **Therefore use of visual methods of teaching, as well as visual support strategies, should always be incorporated to help the child with Asperger's Syndrome better understand his environment.**

**The remainder of this article describes ten primary characteristics of children with Asperger's Syndrome and intervention strategies for each.**

# ***Social Relation Difficulties***

Characteristics: Children with Asperger's Syndrome tend to exhibit a **lack** of effectiveness in social interactions rather than a lack of social interactions. They tend to have difficulty knowing how to 'make connections' socially (4). Children with Asperger's Syndrome easily misread social situations and as a result, others often interpret their interactions and responses as being odd (4).

Children with Asperger's Syndrome can exhibit low self-esteem and possible depression, particularly when they reach adolescence, due to their painful awareness of the social differences that exist between them and their peers (12). They have a desire to "fit in" socially, yet have no idea how to do this. Children with Asperger's syndrome can be significantly impacted by the following characteristics of social relations:

- **Social Reciprocity:** Children with Asperger's Syndrome can exhibit an imbalance in reciprocal social relations (i.e., the "give and take" in social relationships), which can be exhibited in several ways:
  - The child can exhibit the need to take control and direct social situations according to his own limited social rules and social understanding. Although the child may be able to initiate interactions with others, these interactions are typically considered to be "on his own terms". These interactions appear to be very egocentric in that they relate primarily to the child's specific wants, needs, desires and interests and do not constitute a truly interactive, give-and-take social relation with another person.
  - The child can appear very quiet, withdrawn and even unresponsive. He exhibits limited social drive. It can be extremely difficult for the social participant to engage the child in a social relation. (e.g., A child with Asperger's Syndrome was having a birthday party at her home. When the other children arrived, she stayed in the living room with them for a short while. She then said, "good-night", and stayed in her room for the rest of the party.).
- **Recognizing and interpreting various social situations:** Typically developing children are able to recognize and interpret the social nuances of various social situations without being specifically taught. Their intact processing systems allow for this to occur. However children with Asperger's Syndrome typically have great difficulty recognizing, understanding and thus applying appropriate social skills to various social situations. Their unique processing/learning systems do not readily allow for accurate recognition and interpretation of this seemingly abstract information (14).
- **Social rules:** Children with Asperger's Syndrome typically do not learn social rules, either by observing others or through frequent verbal reminders. These children do not appear to be **intentionally** ignoring and/or breaking these rules. Instead, they have a difficult time accurately perceiving social environments and thus, they do not understand that a particular social rule is to be applied in a specific social context.

<p><b>Example:</b> A teacher frequently reminds a child with Asperger's Syndrome, prior to going out for recess, that he cannot push other children. The child repeats this rule prior to going out to recess. However, when the child goes onto the playground at recess, he pushes several children.</p>
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- **Friendship skills:** Children with Asperger's Syndrome tend to exhibit limited knowledge of the concept of friendship.

**Example:** When a teenager with Asperger's Syndrome was asked if he had any friends he responded that friendship was an area where he had some problems. He was able to name two peers whom he considered "friends"; however, he did not know the last name of one of the students. He proceeded to physically describe the student to see if the listener knew the student's last name. When asked why these Students were his friends, he said because he saw them in the hallway during passing period, and that he also saw one of the students at a weekly church youth group meeting. When asked if he and his "friends" went to each others' houses, talked on the phone, etc., the teen with Asperger's Syndrome said no, that he just saw them at different places).

Children with Asperger's Syndrome also do not appear to attend to or respond to peer pressure. They may have definite preferences for clothing due to comfort level, in relation to sensory sensitivities without regard or concern for popular styles as worn by peers.

**Example:** Some children prefer no ridges on the collar, no buttons down the front of a shirt, no blue jeans -only elastic waist pants, no long/short sleeves or long/short pants, etc.

- **Understanding and expressing varied emotional states:** Children with Asperger's Syndrome may have difficulty identifying (labeling and understanding) varied emotional states, both in themselves and in others. In addition, regulation of emotional states can be extremely difficult.

**Example:** When experiencing great distress, a child with Asperger's Syndrome continually asks others for monitoring of his emotional states, "Am I under control yet?", He has limited awareness of when he is calm, versus extremely upset. Another example would be laughing, seemingly inappropriately, when others are hurt, embarrassed, etc. One child with Asperger's Syndrome physically manipulates his face when requested to exhibit various emotional states.

### ***Social Relation-Intervention Strategies:***

The child with Asperger's will need to be **directly taught** various social skills (recognition, comprehension and application) in one-to-one and/or small group settings. Social skills training will also be needed to generalize previously learned social skills from highly structured supportive contexts to less structured settings and, eventually, real-life situations. **It is important to emphasize that children with Asperger's Syndrome will not learn social relations by watching other people, or by participating in various social situations.** They tend to have great difficulty even recognizing the essential information of a social situation, let alone processing / interpreting it appropriately.

- **Tools for teaching social skills:**

- The use of **Social Stories** (9) and **social scripts** can provide the child with visual information and strategies that will improve his understanding of various social situations. (*See the previous article on "Assistive Technology" for an explanation on social stories.*) In addition, the Social Stories/scripts can teach the child appropriate behaviors to exhibit when he is engaged in varied social situations. The repetitious "reading" of the Social Story/script makes this strategy effective for the child with Asperger's Syndrome. A 3-ring binder of Social Stories/scripts kept both at home and school, for

the child to read at his leisure, has proven very successful for many students with Asperger's Syndrome

## "Social Stories"

- **Role-playing** various social situations can be an effective tool for teaching a child appropriate social responses.
- **Video-taping/audio-taping** both appropriate and inappropriate social behaviors can assist the child in learning to identify and respond appropriately to various social situations.
- **"Lunch/recess club"** is a structured lunch/recess time with specific peers to focus on target social skills for the child with Asperger's Syndrome. This strategy can assist in generalizing social skills previously learned in a structured setting.
- **Comic Strip Conversations** (8) can be used to visually clarify social interactions and emotional relations (*see sample ComicStrip conversations photo*).
- **Peer partners/buddies:** Specific peer(s) can be chosen to accompany and possibly assist the child with Asperger's Syndrome during less structured social situations and when experiencing social difficulties (e.g., out of class transitions, recess, lunch, etc.). This peer support network should initially be established in a small group setting.
- **Individualized visual social "rule" cards** can be taped to the child's desk as a visual reminder regarding appropriate social behaviors to exhibit. Portable "rule" cards can be used for environments other than the classroom. The rules can be written on index cards, laminated, and then given to the child to carry along as visual reminders of the social "rules" for any particular context.

## *Social Communication Difficulties*

Characteristics: The child with Asperger's Syndrome typically exhibits highly articulate and verbose expressive language skills with large vocabularies, particularly regarding specific topics (high interest areas). However, his convincing language skills can easily be misinterpreted as **advanced communication** skills. In turn this can result in a mislabeling of the child's actions as purposeful or manipulative, rather than behavior that is due to the child's significant difficulty in understanding and using appropriate social communication skills. Children with Asperger's Syndrome often lack social communication skills to sustain even **minimal** social communicative interactions in any of the following areas:

- **Conversational discourse skills:** Children with Asperger's Syndrome can generally engage in routine social interactions such as greetings. However, they may exhibit significant difficulty engaging in extended interactions, or "two-way" relationships (12).

They can have difficulty initiating and maintaining appropriate conversations, engaging in conversational turn-taking, and changing topics in an appropriate manner. Their language can be extremely egocentric in that they tend to talk at people, instead of to them, exhibiting seemingly one-sided conversations (2). Incessant question asking can also be prevalent, as well as difficulty in repairing conversational breakdowns.

- **Understanding and using non-verbal social communication (discourse) skills:** Children with Asperger's Syndrome can have significant difficulty interpreting non-verbal social communication skills used to regulate social interactions (e.g., tone of voice, facial expressions, body postures, gestures, personal space, vocal volume, use of eye contact to "read" faces, etc.). For example, they may not understand that a raised vocal volume can convey an emotional state such as anger (e.g., a student with Asperger's Syndrome stated, "Why are you talking louder? I can hear you" when his mother raised her voice to communicate anger). These children may also have difficulty interpreting non-verbal cues, which the listener might be giving to communicate that a conversational breakdown has occurred (e.g., facial expressions to indicate not understanding the message, boredom, etc.). Some children with Asperger's Syndrome can exhibit conversational speech with a somewhat flat affect: limited vocal change regarding vocal tone, volume, pitch, stress and rhythm, particularly to indicate emotion and/or emphasize key words.
- **Narrative discourse skills:** Children with Asperger's Syndrome can exhibit difficulty with their narrative discourse skills, including relating past events, or retelling movies, stories, and T. V. shows in a cohesive and sequential manner. They may leave out important pieces of relational information, as well as referents, and may use many revisions, pauses and/or repetitions.

**Example:** A child with Asperger's Syndrome was relating his weekend to the class.

The child with Asperger's Syndrome related: "Back through time, uhm, uhm, at my Grandma's, uh, it was (pause) back through time. I was, I was, I (pause) I uh, a long time ago. I was at my Grandma's."

### ***Social Communication -target skills and strategies for intervention:***

The following social communication skills (pragmatic language skills) may be focused on for direct instruction, depending upon the child's individualized needs:

- Initiation of appropriate social interactions for various situations through appropriate **verbal** utterances, rather than actions or behaviors (e.g., On the playground, the child with Asperger's Syndrome should use the words "Wanna play chase?" to ask a peer to play tag, rather than going up to the peer and shoving them);
- Topic initiation of **varied** topics -not only topics related to high interest areas;
- Topic maintenance, particularly for topics initiated by others;
- Conversational turn-taking across 3-4 turns (reciprocal communication skills);
- Asking questions of others related to topics initiated by others;
- Calling attention to communicative utterances. The child **directs** his communication to someone by first calling the other person's attention to himself;
- Comprehension and use of nonverbal social communication skills: tone of voice, personal space, vocal volume, body orientation, facial expressions, etc.

- Narrative discourse skills: relating past events, retelling stories sequentially and cohesively by including important pieces of relational information as well as referents;
- Greetings
- Seeking assistance appropriately (e.g., raising his hand for help in the classroom).

**Tools for teaching social communication skills:** All of the tools listed previously for teaching social skills can also be used to teach social communication skills, with the addition of the following:

- Visual support strategies can be used to teach conversational discourse skills such as turn taking, topic initiation, topic maintenance, etc. For example, a visual "my turn" card can be used to physically pass back and forth between conversational partners, to visually indicate whose turn it is in the conversation.

## O.A.S.I.S.

### Online Asperger Syndrome Information and Support

#### ASPERGERSYNDROME

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#### Introduction:

Asperger syndrome (also called Asperger disorder) is a relatively new category of developmental disorder the term having only come into more general use over the past fifteen years. Although a group of children with this clinical picture was originally and very accurately described in the 1940's by a Viennese pediatrician, Hans Asperger, Asperger Syndrome (AS) was "officially" recognized in the **Diagnostic and Statistical Manual of Mental Disorders** for the first time in the fourth edition published in 1994. Because there have been few comprehensive review articles in the medical literature to date and because AS is probably considerably more common than previously realized, this discussion will endeavor to describe the syndrome in some detail and to offer suggestions regarding management. Students with AS are not uncommonly seen in mainstream educational settings, although often undiagnosed or misdiagnosed, so this is a topic of some importance for educational personnel, as well as for parents.

Asperger syndrome is the term applied to the mildest and highest functioning end of what is known as the spectrum of pervasive developmental disorders (or the autism spectrum). Like all conditions along that spectrum it is felt to represent a neurologically-based disorder of development, most often of unknown cause, in which there are deviations or abnormalities in three broad aspects of development: social relatedness and social skills, the use of language for communicative purposes and certain behavioral and stylistic characteristics involving repetitive or preservative features and a limited but intense range of interests. It is the presence of these three categories of dysfunction, which can range from relatively mild to severe, which clinically defines all of the pervasive developmental disorders, from AS through to classic autism. Although the idea of a continuum of POD along a single dimension is helpful for understanding the clinical similarities of conditions along the spectrum, it is not at all clear that Asperger syndrome is just a milder form of autism or that the conditions are linked by anything more than their broad clinical similarities.

Asperger syndrome represents that portion of the PDD continuum, which is characterized *by* higher cognitive abilities (at least normal IQ by definition and sometimes ranging up into the very superior range) and by more normal language function compared to other disorders along the spectrum. In fact, the presence of normal basic language skills is now felt to be one of the criteria for the diagnosis of AS, although there are nearly always more subtle difficulties with pragmatic/social language. Many researchers feel it is these two areas of relative strength that distinguish AS from other forms of autism and PDD and account for the better prognosis in AS. Developmentalists have not reached consensus as to whether there is any difference between AS and what is termed high functioning autism (HFA). Some researchers have suggested that the basic neuropsychological deficit is different for the two conditions, but others have been unconvinced that any meaningful distinction can be made between them. One researcher, Uta Frith, has characterized children with AS as having "a dash of autism." In fact, it is likely that there may be multiple underlying subtypes and mechanisms behind the broad clinical picture of AS. This leaves room for some confusion regarding diagnostic terms and it is likely that quite similar children across the country have been diagnosed with AS, HFA, or PDD, depending upon by whom or where they are evaluated.

Since AS itself shows a range or spectrum of symptom severity, many less impaired children who might meet criteria for that diagnosis receive no diagnosis at all and are viewed as "unusual" or "just different," or are misdiagnosed with

conditions such as Attention Deficit Disorder, emotional disturbance, etc. Many in field believe that there is no clear boundary separating AS from children who are "normal but different." The inclusion of AS as a separate category in the new DSM-4, with fairly clear criteria for diagnosis, should promote greater consistency of labeling in the future.

## **Epidemiology**

The best studies that have been carried out to date suggest that AS is considerably more common than "classic" autism. Whereas autism has traditionally been felt to occur in about 4 out of every 10,000 children estimates of Asperger syndrome have ranged as high as 20-25 per 10,000. That means that for each case of more typical autism, schools can expect to encounter several children with a picture of AS (that is even more true for the mainstream setting, where most children with AS will be found). In fact, 'a careful, population-based epidemiological study carried out by Gillberg's group in Sweden, concluded that nearly 0.7% of the children studied had a clinical picture either diagnostic of or suggestive of AS to some degree. Particularly if one includes those children who have many of the features of AS and seem to be milder presentations along the spectrum as it shades into "normal", it seems not to be a rare condition at all.

All studies have agreed that Asperger syndrome is much more common in boys than in girls. The reasons for this are unknown. AS is fairly commonly associated with other types of diagnoses, again for unknown reasons, including: tic disorders such as Tourette disorder, attentional problems and mood problems such as depression and anxiety. In some cases there is a clear genetic component, with one parent (most often the father) showing either the full picture of AS or at least some of the traits associated with AS; genetic factors seem to be more common in AS compared to more classic autism. Temperamental traits such as having intense and limited interests, compulsive or rigid style and social awkwardness or timidly also seem to be more common, alone or in combination, in relatives of AS children. Sometimes there will be a positive family history of autism in relatives, further strengthening the impression that AS and autism are sometime related conditions. Other studies have demonstrated a fairly high rate of depression, both bipolar and unipolar, in relatives of children with AS, suggesting a genetic link in at least some cases. It seems likely that for AS, as for autism, the clinical picture we see is probably influenced by many factors, including genetic ones, so that there is no single identifiable cause in most cases.

## **Definition**

The new DSM-4 criteria for a diagnosis of AS, with much of the language carrying over from the diagnostic criteria for autism, include the presence of:

Qualitative impairment in social interaction involving some or all of the following:

- Impaired use of non-verbal behaviors to regulate social interaction
- Failure to develop age-appropriate peer relationships
- Lack of spontaneous interest in sharing experiences with others
- Lack of social or emotional reciprocity

Restricted, repetitive) and stereotyped patterns of behavior, interests, and activities involving:

- Preoccupation with one or more stereotyped and restricted pattern of interest
- Inflexible adherence to specific non-functional routines or rituals
- Stereotyped or repetitive motor mannerisms, or preoccupation with parts of objects

These behaviors must be sufficient to interfere significantly with social or other areas of functioning. Furthermore, there must be no significant associated delay in general cognitive function, self- help/adaptive skills, and interest in the environment or overall language development.

Christopher Gillberg, a Swedish physician who has studied AS extensively, has proposed six criteria for diagnosis, elaborating upon the criteria set forth in DSM-4. His six criteria capture the unique style of the children and include:

**\* Social Impairment with extreme egocentricity, which may include:**

- Inability to interact with peers
- Lack of desire to interact with peers. Poor appreciation of social cues
- Socially and emotionally inappropriate responses

**\* Limited interests and preoccupations, including:**

- More rote than meaning
- Relatively exclusive of other interests .repetitive adherence

**\* Repetitive routines or rituals, that may be:**

- Imposed on self, or
- Imposed on others

**\* Speech and language peculiarities, such as:**

- Delayed early development possible but not consistently seen
- Superficially perfect expressive language
- Odd prosody, peculiar voice characteristics
- Impaired comprehension including misinterpretation of literal and implied meanings

**\* Non-verbal communication problems, such as:**

- Limited use of gesture
- Clumsy body language
- Limited or inappropriate facial expression
- Peculiar “stiff” gaze
- Difficulty adjusting physical proximity

**\* Motor clumsiness**

- May not be necessary part of the picture in all cases

**Clinical Features**

The most obvious hallmark of Asperger syndrome and the characteristic that makes these children so unique and fascinating is their peculiar, idiosyncratic areas of “special interest”. In contrast to more typical autism, where the interests are more likely to be objects or parts of objects, in AS the interests appear most often to be specific intellectual areas. Often, when they enter school, or even before, these children will show an obsessive interest in an area such as

math, aspects of science, reading (some have a history of hyperlexia--rote reading at a precocious age) or some aspect of history or geography, wanting to learn everything possible about that subject and tending to dwell on it in conversations and free play. I have seen a number of children with AS who focus on maps, weather, astronomy, various types of machinery or aspects of cars, trains, planes or rockets. Interestingly, as far back as Asperger's original clinical description in 1944, the area of transport has seemed to be a particularly common fascination (he described children who memorized the tram lines in Vienna down to the last stop). Many children with AS, as young as three years old, seem to be unusually aware of things such as the route taken on car trips. Sometimes the areas of fascination represent exaggerations of interests common to children in our culture, such as Ninja Turtles, Power Rangers, dinosaurs, etc. In many children the areas of special interest will change over time, with one preoccupation replaced by another. In some children, however, the interests may persist into adulthood and there are many cases where the childhood fascinations have formed the basis for an adult career, including a good number of college professors.

The other major characteristic of AS is the socialization deficit, and this, too, tends to be somewhat different than that seen in typical autism. Although children with AS are frequently noted by teachers and parents to be somewhat "in their own world" and preoccupied with their own agenda, they are seldom as aloof as children with autism. In fact, most children with AS, at least once they get to school age, express a desire fit in socially and have friends. They are often deeply frustrated and disappointed by their social difficulty. Their problem is not a lack of interaction so much as lack of effectiveness in interactions. They seem to have difficulty knowing how to "make connections" socially. Gillberg has described this as a "disorder of empathy", the inability to effectively "read" others' needs and perspectives and respond appropriately. As a result, children with AS tend to misread social situations and their interactions and responses are frequently viewed by others as "odd".

Although "normal" language skills are a feature distinguishing AS from other forms of autism and PDD, there are usually some observable differences in how children with AS use language. It is the more rote skills that are strong, sometimes very strong. Their prosody--those aspects of spoken language such as volume of speech, intonation, inflection, rate, etc.--is frequently unusual. Sometimes the language sounds overly formal or pedantic, idioms and slang are often not used or are misused, and things are often taken too literally. Language comprehension tends toward the concrete, with increasing problems often arising as language becomes more abstract in the upper grades. Pragmatic, or conversational, language skills often are weak because of problems with turn-taking, a tendency to revert to areas of special interest or difficult sustaining the "give and take" of conversations. Many children with AS have difficulties dealing with humor, tending not to "get" jokes or laughing at the wrong time; this is in spite of the fact that quite a few show an interest in humor and jokes, particularly things such as puns or word games. The common belief that children with pervasive developmental disorders are humorless is frequently mistaken. Some children with AS tend to be hyper verbal, not understanding that this interferes with their interactions with others and puts others off.

When one examines the early language history of children with AS there is no single pattern: some of them have normal or even early achievement of milestones, while others have quite clear early delays on speech with rapid catch-up to more normal language by the time of school entry. In such a child under the age of three years in whom language has not yet come up into the normal range, the differential diagnosis between AS and milder autism can be difficult to the point that only time can clarify the diagnosis. Frequently, also, particularly during the first several years, associated language features similar to those in autism may be seen, such as preservative or repetitive aspects to language or use of stock phrases or lines drawn from previously heard material.

### **Asperger Syndrome Through the Lifespan**

In his original 1944 paper describing the children who later came to be described under his name, Hans Asperger recognized that although the symptoms and problems change over time, the overall problem is seldom outgrown. He wrote, "in the course of development, certain features predominate or recede, so that the problems presented change considerably. Nevertheless, the essential aspects of the problem remain unchanged. In early childhood there are the difficulties in learning simple practical skills and in social adaptation. These difficulties arise out of the same disturbance which at school age cause learning and conduct problems, in adolescence job and performance problems and in adulthood social and marital conflicts." On the other hand, there is no question that children with AS have generally milder problems at every age compared to those with other forms of autism or POD, and their ultimate prognosis is certainly better. In fact, one of the more important reasons to distinguish AS from other forms of autism is its considerably milder natural history.

## **The preschool child:**

As has been noted, there is no single, uniform presenting picture of Asperger syndrome in the first 3-4 years. The early picture may be difficult to distinguish from more typical autism, suggesting that when evaluating any young child with autism and apparently normal intelligence, the possibility should be entertained that he/she may eventually have a picture more compatible with an Asperger diagnosis. Other children may have early language delays with rapid "catch-up" between the ages of three and five years. Finally, some of these children, particularly the brightest ones, may have no evidence of early developmental delay except, perhaps, some motor clumsiness. In almost all cases, however, if one looks closely at the child between the age of about three and five years, clues to the diagnosis can be found, and in most cases a comprehensive evaluation at that age can at least point to a diagnosis along the PDD/autism spectrum. Although these children may seem to relate quite normally within the family setting, problems are often seen when they enter a preschool setting. These may include: a tendency to avoid spontaneous social interactions or to show very weak skills in interactions, problems sustaining simple conversations or a tendency to be preservative or repetitive when conversing, odd verbal responses, preference for a set routine and difficulty with transitions, difficulty regulating social/emotional responses with anger, aggression, or excessive anxiety, hyperactivity, appearing to be "in one's own little world", and the tendency to over focus on particular objects or subjects. Certainly, this list is much like the early symptom list in autism or PDD. Compared to those children, however, the child with AS is more likely to show some social interest in adults and other children, will have less abnormal language and conversational speech ~ may not be as obviously "different" from other children. Areas of particularly strong skills may be present, such as letter or number *recognition*, rote memorization of various facts, etc.

## **Elementary school:**

The child with AS will frequently enter kindergarten without having been adequately diagnosed. In some cases, there will have been behavioral concerns (hyperactivity, inattention, aggression, outbursts) in the preschool years; there may be concern over "immature" social skills and peer interactions; the *child* may already be viewed as being somewhat unusual. If these problems are more severe, special education may be suggested, but probably most children with AS enter a more mainstream setting. Often, academic progress in the early grades is an area of relative strength; for example, rote reading is usually quite good and calculation skills may be similarly strong, although pencil skills are often considerably weaker. The teacher will probably be struck by the child's "obsessive" areas of interest, which often intrude in the classroom setting. Most AS children will show some social interest in other children, although it may be reduced, but they are likely to show weak friend-making and friend-keeping skills. They may show particular interest in one or a few children around them, but usually the depth of their interactions will be relatively superficial. On the other hand, I have known quite a number of children with AS who present as pleasant and "nice", particularly when interacting with adults. The social deficit, when less severe, may be under appreciated by many observers. I

The course through elementary school can vary considerably from child to child, and overall problems can range from mild and easily managed to severe and intractable, depending upon factors such as the child's intelligence level, appropriateness of management at school and parenting at home, temperamental style of the child, and the presence or absence of complicating factors such as hyperactivity/attentional problems, anxiety, learning problems, etc.

## **The upper grades:**

As the child with AS moves into middle school and high school, the most difficult areas continue to be those related to socialization and behavioral adjustment. Paradoxically, because children with AS are frequently managed in mainstream educational settings, and because their specific developmental problems may be more easily overlooked (especially if they are bright and do not act too "strange"), they are often misunderstood at this age by both teachers and other students. At the secondary level, teachers often have less opportunity to get to know a child well and problems with behavior or work/study habits may be misattributed to emotional or motivational problems. In some settings, particularly less familiar or structured ones such as the cafeteria, physical education class or playground, the child may get into escalating conflicts or power struggles with teachers or students who may not be familiar with their developmental style of interacting. This can sometimes lead to more serious behavioral flare-ups. Pressure may build up in such a child with little clue until he then reacts in a dramatically inappropriate manner.

In middle school, where the pressures for conformity are greatest and tolerance for differences the least, children with AS may be left out, misunderstood or teased and persecuted. Wanting to make friends and fit in, but unable to, they may withdraw even more, or their behavior may become increasingly problematic in the form of outbursts or non-cooperation. Some degree of depression is not uncommon as a complicating feature. If there are no significant learning disabilities, academic performance can continue strong, particularly in those areas of particular interest; often, however, there will be ongoing subtle tendencies to misinterpret information, particularly abstract or figurative/idiomatic language. Learning difficulties are frequent and attentional and organizational difficulties may be present.

Fortunately, by high school peer tolerance for individual variations and eccentricity often increases again to some extent. If a child does well academically, that can bring a measure of respect from other students. Some AS students may pass socially as “nerds”, a group which they actually resemble in many ways and which may overlap with AS. The AS adolescent may form friendships with other students who share his interests through avenues such as computer or math clubs, science fairs, Star Trek clubs, etc. With luck and proper management, many of these students will have developed considerable coping skills, “social graces” and general ability to “fit in” more comfortably by this age, thus easing their way.

### **Asperger Children grow up:**

It is important to note that we have limited solid information regarding the eventual outcome for most children with AS. It has only been recently that AS itself has been distinguished from more typical autism in looking at outcomes and milder cases were generally not recognized. Nonetheless, the available data does suggest that, compared to other forms of autism/PDD, children with AS are much more likely to grow up to be independently functioning adults in terms of employment, marriage and family, etc.

One of the most interesting and useful sources of data on outcome comes indirectly from observing those parents or other relatives of AS children, who themselves appear to have AS. From these observations it is clear that AS does not preclude the potential for a more “normal” life. Commonly, these adults will gravitate to a job or profession that relates to their own areas of special interest, sometimes becoming very proficient. A number of the brightest students with AS are able to successfully complete college and even graduate school. Nonetheless, in most cases they will continue to demonstrate, at least to some extent, subtle differences in social interactions. They can be challenged by the social and emotional demands of marriage, although we know that many do marry. Their rigidity of style and idiosyncratic perspective on the world can make interactions difficult, both in and out of the family. There is also the risk of mood problems such as depression and anxiety, and it is likely that many find their way to psychiatrists and other mental health providers where, Gillberg suggests, the true, developmental nature of their problems may go unrecognized or misdiagnosed.

In fact, Gillberg has estimated that perhaps 30-50% of all adults with AS are never evaluated or correctly diagnosed. Others view these “normal Asperger’s” as “just different” or eccentric, or perhaps they receive other psychiatric diagnoses. I have met a number of individuals whom I believe fall into that category, and I am struck by how many of them have been able to utilize their other skills, often with support from loved ones, to achieve what I consider to be a high level of function, personally and professionally. It has been suggested that some of these highest functioning and brightest individuals with AS represent a unique recourse for society, having the single mindedness and consuming interest to advance our knowledge in various areas of science, math, etc.

### **Thoughts for Management in the School**

The most important starting point in helping a student with Asperger syndrome function effectively in school is for the staff (all who will come into contact with the child) to realize that the child has an inherent developmental disorder which causes him or her to behave and respond in a different way from other students. Too often, behaviors in these children are interpreted as “emotional”, or “manipulative”, or some other term that misses the point that they respond differently to the world and its stimuli. It follows from that realization that school staff must carefully individualize their approach for each of these children; it will not work out to treat them just the same as other students. Asperger

himself realized the central importance of teacher attitude from his own work with these children. In 1944, he wrote, "These children often show a surprising" sensitivity to the personality of the teacher... They can be taught, but only by those who give the true understanding and affection, people who show kindness towards them and, yes, humor...The teacher's underlying emotional attitude influences, involuntarily and unconsciously, the mood and behavior of the child."

Although it is likely that many children with AS can be managed primarily in the regular classroom setting, they often need some educational support services. If learning problems are present, resource room or tutoring can be helpful, to provide individualized explanation and review. Direct speech services may not be needed, but the speech and language clinician at school can be useful as a consultant to the other staff regarding ways to address problems in areas such as pragmatic language. If motor clumsiness is significant as it sometimes is, the school Occupational Therapist can provide helpful input. The school counselor or social worker can provide direct social skills training, as well as general emotional support. Finally, a few children with very high management needs may benefit from assistance from a classroom aide assigned to them. On the other hand, some of the higher functioning children and those with milder AS, are able to adapt and function with little in the way of formal support services at school, if staff are understanding, supportive and flexible.

There are a number of general principles of managing most children with PDD of any degree in school, and they apply to AS, as well:

- The classroom routines should be kept as consistent, structured and predictable as possible. Children with AS often don't like surprises. They should be prepared in advance, when possible, for changes and transitions, including things such as schedule breaks, vacation days, etc.
- Rules should be applied carefully. Many of these children can be fairly rigid about following "rules" quite literally. While clearly expressed rules and guidelines, preferably written down for the student, are helpful, they should be applied with some flexibility. The rules do not automatically have to be exactly the same for the child with AS as for the rest of the students--their needs and abilities are different
- Staff should take full advantage of a child's areas of special interest when teaching. The child will learn best when an area of high personal interest is on the agenda. Teachers can creatively connect the child's interests to the teaching process. One can also use access to the special interests as a reward to the child for successful completion of other tasks or adherence to rules or behavioral expectations,
- Most students with AS respond well to the use of visuals: schedules, charts, lists, pictures, etc. In this way they are much like other children with PDD and autism
- In general, try to keep teaching fairly concrete. Avoid language that may be misunderstood by the child with AS, such as sarcasm, confusing figurative speech, idioms, etc. Work to break down and simplify more abstract language and concepts
- Explicit, didactic teaching of strategies can be very helpful, to assist the child to gain proficiency in "executive function" areas such as organization and study skills. ,
- Insure that school staff outside of the classroom such as physical education teachers, bus drivers, cafeteria monitors, librarians, etc., are familiar with the child's style and needs and have been given adequate training in management approaches. Those less structured settings where the routines and expectations are less clear tend to be difficult for the child with AS.
- Try to avoid escalating power struggles. These children often do not understand rigid displays of authority or anger and will themselves become more rigid and stubborn if forcefully confronted. Their behavior can then get rapidly out of control, and at that point it is often better for the staff person to back off and let things cool down. It is always preferable when possible, to anticipate such situations and take preventative action to avoid the confrontation through calmness, negotiation, presentation of choices or diversion of attention elsewhere.

A major area of concern as the child moves through school is promotion of more appropriate social interactions and helping the child fit in better socially. Formal, didactic social skills training can take place both in the classroom and in more individualized settings. Approaches that have been most successful utilize direct modeling and role-playing at a concrete level (such as in the Skillstreaming Curriculum). By rehearsing and practicing how to handle various social situations, the child can hopefully learn to generalize the skills to naturalistic settings. It is often useful to use a dyad approach where the child is paired with another to carry out such structured encounters. The use of a "buddy system"

can be very useful, since these children relate best 1-1. Careful selection of a non-Asperger peer buddy for the child can be a tool to help build social skills, encourage friendships and reduce stigmatization. Care should be taken, particularly in the upper grades, to protect the child from teasing both in and out of the classroom since it is one of the greatest sources of anxiety for older children with AS. Efforts should be made to help other students arrive at a better understanding of the child with AS, in a way that will promote tolerance and acceptance. Teachers can take advantage of the strong academic skills that many AS children have, in order to help them gain acceptance with peers. It is very helpful if the AS child can be given opportunities to help other children at times.

Although most children with AS are managed without medication and medication does not "cure" any of the core symptoms, there are specific situations where medication can occasionally be useful. Teachers should be alert to the potential for mood problems such as anxiety or depression, particularly in the older child with AS. Medication with an antidepressant (eg. imipramine or one of the newer serotonergic drugs such as fluoxetine) may be indicated if mood problems are significantly interfering with the child's functioning. Some children with significant compulsive symptoms or ritualistic behaviors can be helped with the same serotonergic drugs or clomipramine. Problems with inattention at school that are seen in certain children can sometimes be helped by stimulant medications such as methylphenidate or dextroamphetamine, much in the same way they are used to treat Attention Deficit Disorder. Occasionally, medication may be needed to address more severe behavior problems that have not responded to non-medical, behavioral intervention: Clonidine is one medication that has proven helpful in such situations and there are other options if necessary.

In attempting to put a comprehensive teaching and management plan into place at school it is often helpful for staff and parents to work closely together, since parents often are most familiar with what has worked in the past for a given child. It is also wise to put as many details of the, plan as possible into an Individual Educational Plan so that progress can be monitored and carried over from year to year. Finally, In devising such plans, it can sometimes be helpful to enlist the aid of outside consultants familiar with the management of children with Asperger syndrome and other forms of PDD, such as Boces consultants, psychologists, or physicians. In complex cases a team orientation is always advisable.

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# *What is Asperger Disorder?*

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## **A) Evolution of the Diagnoses of Autism and Asperger Disorder**

1943 Kanner	Infantile Autism
1944 Asperger	Autistic Psychopathy
1967 Rutter	Early Onset Psychosis
1968 AP A DSM II	Schizophrenia, Childhood Type
1977 WHO ICD-9	Childhood Psychosis. Infantile Autism Subtype
1980 AP A DSM III	Pervasive Developmental Disorders 1) Infantile Autism, full syndrome present 2) Infantile Autism, residual state 3) Childhood onset PDD, full syndrome 4) Childhood Onset PDD, residual state 5) Atypical PDD
1987 APA DSM III R	Pervasive Developmental Disorders 1) Autistic Disorder 2) Pervasive developmental Disorder Not Otherwise Specified (PDDNOS)
1994 APA DSM IV	1) Autistic Disorder
1995 WHO ICD-10	2) Rett Disorder 3) Asperger Disorder 4) Disintegrative Disorder 5) PDDNOS

## **B) Asperger Disorder is a Fairly New Diagnostic Entity**

In 1944 Hans Asperger, a Viennese pediatrician first described a syndrome, which he considered as a personality disorder. He called the syndrome *autistic psychopathy*. Wing (1981) suggested that Asperger Syndrome be considered as a part of the "autistic continuum" and that Asperger Syndrome could be a mild variant of autism in relatively bright children. Both the Diagnostic and Statistical Manual of Mental Disorders, 3rd Edition (DSM-III) (1980) and the revised 3rd Edition (DSM-III-R) (1987) of the American Psychiatry Association adopted Wing's (1981) view of Asperger Syndrome as "a mild variant of autism" and did not offer any specific definition and diagnostic criteria for Asperger Syndrome to separate it from autisms. Based on DSM-III-R, individuals with Asperger Syndrome had been diagnosed as having either "high functioning Autistic Disorder" or Pervasive Developmental Disorder Not Otherwise Specified (PDDNOS).

Tantam (1988) proposed to use the term Asperger's Syndrome to refer to individuals without delayed or deviant cognitive and language developments but who have severely impaired social understanding and reciprocity, pragmatic difficulties and unusual circumscribed interests. The proposal has been adopted by both the Diagnostic and Statistical Manual of Mental Disorders, 4th Edition (DSM IV) of American Psychiatric Association (1994) and the International Classification of Diseases, 10th Edition (ICD-10) of World Health Organization (1995). Asperger Syndrome is now

considered by both ICD-10 and DSM-IV diagnostic systems as a distinct subtype of Pervasive Developmental Disorders (PDD) and the official term of this subtype is **Asperger Disorder**. The other subtypes of PDD include Autistic Disorder, Atypical Autism, Rett Disorder, and Childhood Disintegrated Disorder.

The followings are the diagnostic criteria set forth by the DSM V for Autistic Disorder and Asperger Disorder:

### AUTISTIC DISORDER

A. A total of at least 6 items from (1),(2),& (3) with at least 2 from (1), and one each from (2) & (3)

**(1)** Qualitative impairment in social interaction:

(a) marked impairment in the use of multiple nonverbal behaviors such as eye-to-eye gaze, facial expression, body postures, and gestures to request social inter-action

(b) failure to develop-mental level

(c) markedly impaired expression of pleasure in other peoples happiness

(d) lack of social or emotional reciprocity

**(2)** Qualitative impairments in communication

(a) delay in, or total lack of, the development of spoken language (not accompanied by an attempt to compensate through alternative modes of communication such as gesture or mime)

(b) in individuals with adequate speech, marked impairment in the ability to initiate or sustain a conversation with others

(c) Stereotyped and repetitive use of language or idiosyncratic language

(d) Lack of varied spontaneous make-believe play or social imitative play appropriate to developmental level

### ASPERGER DISORDER

**A.** Qualitative impairment in social interaction: (At least **two** of the following)

(a) marked impairment in the use of multiple nonverbal behaviors such as eye-to-eye gaze, facial expression, body postures, and gestures to request social inter-action.

(b) failure to develop peer relationships appropriate to develop-mental level

(c) markedly impaired expression of pleasure in other people's happiness

(d) lack of social or emotional reciprocity

**B.** Restricted repetitive and stereotyped patterns of behavior, interests, & activities. (At least **one** of the following)

(a) Encompassing preoccupation with one or more stereotyped patterns of interest that is abnormal either in intensity or focus.

(b) Apparently compulsive adherence to specific, nonfunctional routine or rituals

(c) Stereotyped and repetitive motor mannerisms

(d) Persistent preoccupation with parts of objects

**C.** The disturbance cause clinically significant impairment in social, occupational, or other important areas of functioning.

**D.** There is no clinically significant general delay in language

## AUTISTIC DISORDER

**(3)** Restricted repetitive and stereotyped patterns of behavior interests, & activities  
(At least **one** of the following)

- (a) encompassing preoccupation with one or more stereotyped & restricted patterns of interest that is abnormal either in intensity or focus
- (b) apparently compulsive adherence to specific, nonfunctional routine or rituals
- (c) stereotyped and repetitive motor mannerisms
- (d) persistent preoccupation with parts of objects

**B.** Delays or abnormal functioning in at least one of the following areas, with onset prior to age 3:  
(1) social interaction, (2) language as used in social communication, or (3) symbolic or imaginative play.

**C.** Not better accounted for by Rett's Disorder or Childhood Disintegrative Disorder.

## ASPERGER DISORDER

**E.** There is no clinically significant delay in cognitive development or in the development of age-appropriate self-help skills, adaptive behaviors, and curiosity about the environment in childhood

### **C) Problems with the DSM IV Definition of Asperger Disorder**

The DSM IV has the same diagnostic criteria for both Asperger Disorder and Autistic Disorder in the core symptom clusters of "impairment of social interaction" and "restricted and stereo typed pattern of behavior, interests, and activities." Thus DSM IV uses "delayed in speech development" to differentiate Asperger Disorder from High Functioning Autistic Disorder (i.e., those with a normal IQ), However, Wing (1981) reported that half of her sample of 34 cases with Asperger Syndrome had been slow to talk as children but who had made progress in language and other skills, Wing also found that careful questioning often elicited a history of a lack of communication behaviors in infancy in people with Asperger Syndrome. This presenter and other clinicians had also seen children who had a history of delayed speech development but developed Asperger Disorder feature when they were older. Hence the current DSM IV definition and diagnostic criteria are not very helpful to clinicians in making differential diagnosis between High Functioning Autistic Disorder and Asperger Disorder.

On the other hand, this presenter has also encountered with individuals with IQs in the "mild mental retardation" range but who present clinical features that resemble Asperger Disorder.

It is crucial that a more valid definition and more reliable diagnostic criteria of Asperger Syndrome be established as soon as possible so that early identification and intervention of children with Asperger become possible.

**\*\*At present, it is this presenters position that “Delayed speech development” and/or “IQ below 70” CAN be considered as features of Asperger Disorder.**

## **D) Tsai’s Developmental Model of Asperger Disorder and Autistic Disorder**

The following developmental model is developed based on this presenter’s more than fifteen years of clinical and research experiences:

## **E) Clinical Case Examples**

Case 1) A mother's description of her 5-year-old son who exhibited many features of Asperger Disorder:

“He is bossy, obnoxious, argumentative and manipulative.”

“He is belligerent and demanding.”

“His negative behaviors usually results from demands placed upon him to perform in the kindergarten.”

“He is engaging in pretend play and he is interested in other kids, but he always wants to direct the play.”

Case 2) P was an 11-year-old white boy.

His classroom teacher described him as:

Academically, H was in the upper 5% of his class. He caught on readily to new concepts presented within the class. In areas such as math and science he could assess problems presented and find valid, alternative methods for solving these problems, other than what was presented in class.

P’s work was usually turned in neat, organized and on time.

P was very meticulous about the illustrations, which consequently made his assignment late.

Although P was in the upper percentile academically, he often had trouble with socialization within the classroom setting. During whole class discussion he would participate however, he would often preface his contributions with "technically, that is not correct," or "I am not saying your answer is wrong, but I think mine is more accurate." The tone of his voice was often rude and condescending toward others and myself within the class. His behavior during whole class discussion consequently had a negative affect when students were asked to work with him in cooperative groups.

P did not like working in cooperative groups. He would always ask if he could work by himself. 'When students were allowed to choose their own groups, P would not seek out a group, he would wait at his desk for someone to ask him to be in their group. Once in a group setting, P could not listen to the ideas of others; he would return to his seat or wander off to do something else within the classroom. During one group project he became so angry and frustrated that he threw his social studies book to the floor, screaming and crying, because he did not want to portray a certain person from history in a skit. He cried, "They're forcing me to be someone I don't want to be!"

The following is from the medical/ psychiatric record report of this boy:

At home he is described as disrespectful, especially when disagreeing with his parents at which point he would stick his tongue out or make faces at them. He would also have trouble following rules. According to his parents, P would get easily irritated and has on occasions kicked his mother and sister. His mother reports that P can play with a computer all day long if she lets him. He could also spend long hours playing with his Legos. He also enjoys taking things apart like his mother's jewelry box to see how it works and puts it back to together.

When we asked his parents about his childhood, he proceeded to suck his thumb. P presented provocative by making faces or answering questions by saying "You do not need to know" and then answering the question. Here is how our conversation sounded in my interview with P alone:

Question: What do you for fun?

Answer: Too many things (burped), I am gross.

Question: Do you have any friends?

Answer: Yes.

Question: Could you tell me the name of some of your friends?

Answer: I do not want to give you the names of my friends. You do not need to know. I have never told any one. It has nothing to do with sex. I am not that gross, I am very stupid. Not. I love to make you guys mess up. I am a kidder. I like it. It is fun.

Question: P, what happens when people do not agree with you?

Answer: They suffer the consequences. You do not need to know. I usually give up on them. Sometimes they do not compromise but I do with my parents. I do not have to listen to them (people) if they do not listen to me. My parents don't like U of M.

### Case 3) An 11-year-old boy (J)

The following was a report the boy as asked to write by his teacher after he got involved in a physical fight with his classmate.

"I've been having a hard time lately. I've had light headaches, I've been tired, and I've also been short tempered. The last thing I need is to have dimwits say stuff to make themselves laugh.

*K*, for instance, at first seemed like a suck up and now he is just a bit too nosey and always has to be around when something's happening.

*P* is another person. He never pays attention he is wrong in most subjects (except in English and maybe gym, he stinks!), and he never gets anything.

A lot of the guys in my classes are just plain old dumb. And I hate it! I've corrected enough of their papers to know it, too!

What happened is that I was hurrying to class and the one I hit made a wisecrack. I just couldn't stand it anymore and I began to chase him. I cornered him on the runway and started to hit him. He then shoved me a little and then you came out. As you did, the other kids asked me, "What's your problem, man?" "That's another thing, their problem to miss the obvious. You know the rest since you were there.

And that's what happened. Honestly.

(1) I was hurrying to class and (2) Andy made a wisecrack, (3) I chased him for a second, (4) I cornered him on the runway and (5) began to hit him. (6) MIS. A came out and (7) the rest you know"

Case 4) A 14 year old boy

E is an 8th grade student. On March 6, 2001, E received a disciplinary referral for inappropriate behaviors while under Mrs. F's instruction. Using the information contained in the referral, this social worker met with E on Monday, March 12, 2001, in order to ascertain his response to the referral. Also present at the interview were Mrs. O, Special Education Supervisor, and E's mother.

Q. E--what happened to lead to your suspension from school?

A. "I kicked her and told her I'd kill her if she told my mom I was being bad."

Q. Did you make a contract that you would go outside for ten minutes and then come back in and work?

A. "Yep."

Q. When you were coming back inside, did you hit her on the back?

A. "Yeah, but not hard."

Q. Did she tell you that she would report you because that was assault?

A. "That's a lie."

Q. She didn't tell you she could report it? What would happen if she did report it?

A. "I would go to jail because now I am 14. I used to be 13 and I just turned 14."

Q. It says here in the report that you grabbed her arm and squeezed it. Did you do that?

A. "No, I twisted it."

Q. Did you think that you would get in trouble for doing these things?

A. "No, not at the time."

Q. Why not?

A. "I don't know."

Q. Did you tell her you would spit on her?

A. "Yeah."

Q. It says in the report that you were sitting at a table, swinging your leg and that you kicked her. Is that true? Did you do that on purpose?

A. "Yes,"

Q. After she asked you to stop, did you keep on?

A. "No."

Q. Did you tell her you would kill her if she told?

A. "Yeah."

Q. Why did you tell her that?

A. "Because my dad would kill me if he finds out."

Q. Does your dad know what happened and why you're not in school?

(E looks at mom and asks, "Did you tell him?") .

Q. Do you mean that? That you would actually kill her?

A. "Yeah, I would choke her, knock her out cold so she wouldn't feel it when I kill her."

Q. Why would you do that to her?

A. "I don't want her to tell."

Q. Did you also tell her that you would kill her for telling that *you* stole gum last week?

A. "Yeah," (Uses slashing motion across his neck.)

Q. Did you tell her that if she did call the police that they wouldn't do anything because you're crazy?

A. "No, not crazy. I said I've got problems; a disability is what I mean. I'm retarded. I have trouble learning."

Q. E, what happened to you after this happened-like consequences?

A. "I got kicked out of school, which I really like,"

Q. Did you lose any privileges?

A. "My bike,"

Q. Did you get grounded?

A. "No."

Q. Did you have any other consequences?

A. "No."

Q. What about like church?

A. (Mother responds-"No, he needs church, I wouldn't take that away.")

During the course of this interview with E, his mother interjected that he often makes threats of "killing someone" in a matter of fact manner, and "He says that all the time." Additionally, his use of hitting or squeezing someone's arm was described as routine behavior exhibited by E. E also stated that he would obtain a knife for his use as protection from his father, because he would try to use force with him in disciplining him for these behaviors. When speaking about what would happen if he went to jail, E said, "They only feed you once a day." This seemed to be the worst consequence he could describe about going to jail.

## **F) Clinical Features of Asperger Disorder**

According to Asperger's observation, individuals with Asperger Disorder usually began to speak at approximately the same time as normal children. A full command of grammar was acquired sooner or later. There might be difficulty in using pronouns correctly. The content of speech was usually abnormal, pedantic, and consisted of lengthy discussion in favorite subjects. Often a word or phrase was repeated over and over again in a stereotyped fashion. Other features he described were the impairment of a two-way social interaction, totally ignoring demands of the environment, repetitive and stereotyped play; and isolated areas of interests. Asperger believed that the condition was never recognized in infancy and that those with the syndrome had excellent logical abstract thinking and were capable of originality and creativity in chosen fields. It was quite possible that some individuals diagnosed by Asperger as having and "Autistic Psychopathy" were actually individuals with late onset Autistic Disorder. In other words, individuals seen by Asperger and who received a diagnosis of "Autistic Psychopathy" could not be considered as a very homogeneous group of people.

Some young children with Asperger Disorder precociously learn numbers, letters, and decoding words. However, they generally have very little or no understanding of what they read. Individuals with Asperger Disorder usually like to be with other people and like to talk. However, their speech may be marked by poor prosody. Their conversation is often described as being stilted, gauche, thought disordered, or centering on idiosyncratic interests that preoccupy them. They have markedly impaired nonverbal expression and tend to have limited use of facial expression and gestures to communicate. They talk either too much or too little. When they talk, they frequently show abnormalities in inflection

(either flat and monotonous or else exaggerated) and would repeat inappropriate phrases out of context. They also tend to have odd speech. They are interested in human relationships but are unable to carry through social interactions with sufficient success to make relationships easy. They usually approached others only to have their needs met. Their social approach tends to be very clumsy and they usually engage in one-sided social interactions. They have difficulty sensing or are detached from the feelings of others (Szatmari et al., 1989).

### **Comorbid Psychiatric Disorders of Asperger Syndrome**

Other psychiatric disorders such as Tourette Disorder (Berthier et al. 1993; Marriage et al. 1993) and Affective illness/depression (Tantam 1988; Wing 1981) have been associated with Asperger Syndrome. The etiological meaning of the association is not clear. Since there is a close relationship between Tourette Disorder and Obsessive-Compulsive Disorder; it may have some common genetic involvement because Asperger Syndrome also has strong obsessive-compulsive features. Clinicians should pay extra attention to the possibility of co-existing Tourette Disorder or Obsessive-Compulsive Disorder when dealing with individuals with Asperger Syndrome.

## G) Clinical Features of High Functioning Autism and Asperger Disorder

### Social Interaction/Interest

- (a) marked impairment in the use of multiple nonverbal behaviors to regulate social interaction
- (b) failure to develop peer relationships
- (c) a lack of spontaneous seeking to share enjoyment, interests, or achievements with other people
- (d) lack of social or emotional reciprocity

- \*\* Aloof social interactions
- \*\* Interested in heterosexual relationship
- \*\* Odd or intrusive social interactions
- \*\* Argumentative, rules only for others
- \*\* No insight of own disability

### Communication Deficit

- (a) delay in the development of spoken language
- (b) marked impairment in the ability to initiate/sustain a conversation
- (c) stereotyped and repetitive use of language or idiosyncratic language
- (d) lack of varied spontaneous make-believe play or social imitative play

- \*\* Fails to develop grammatical speech
- \*\* Talks like grown-ups in early childhood
- \*\* Sarcastic or ironic speech
- \*\* Pedantic speech
- \*\* Like to tell people his/her special knowledge

	<u>HFA</u>
	X
	X
	XX
	X
	XXX
	X
	X
	X
	O/X
	<u>HFA</u>
	X
	XX
	XX
	X
	X
	O/X
	O/X
	X
	O/X

	<u>Asperger</u>
	X
	XXX
	X
	XXX
	X
	XXX
	XXX
	XXX
	XXX
	<u>Asperger</u>
	O/X
	O/X
	O/X
	O/X
	O/X
	O/X
	XX
	XX
	XXX
	XX

**Unusual Interest/Activity**

- (a) encompassing preoccupation with one or more stereotyped and restricted patterns of interest
- (b) apparently inflexible adherence to specific, nonfunctional routine or rituals
- (c) stereotyped and repetitive motor mannerisms
- (d) persistent preoccupation with parts of objects

- \*\* Talking, reading, drawing about violence/death
- \*\* Impaired visuo-spatial skills
- \*\* Unusual reaction to weather, insect, etc.

**Other Characteristics**

- \*\* Moody and easily frustrated with tantrums
- \*\* Poor hygiene

	<u>HFA</u>	<u>Asperger</u>
(a)	X	XX
(b)	X	XX
(c)	X	X
(d)	X	X
** Talking, reading, drawing about violence/death	O/X	XXX
** Impaired visuo-spatial skills	X	XX
** Unusual reaction to weather, insect, etc.	X	XX
<b>Other Characteristics</b>		
** Moody and easily frustrated with tantrums	O/X	XXX
** Poor hygiene	O/X	XX

**O/X = mild, XX = moderate, XXX= severe or marked**

# Neurobiology, Social Adaptation and Comprehensive Treatment of Asperger Disorder

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## Prevalence

Information on the prevalence of Asperger Disorder is somewhat limited. Wing and Gould (1979) reported a prevalence of 0.6 per 10,000 for children with a combination of Asperger Disorder and mild mental retardation. An additional .1 per 10,000 children had been "autistic" in early life but later showed features of Asperger Disorder.

Gillberg and Gillberg (1989) reported that among the normal Swedish children, a rate of 10-26 per 10,000 was considered as minimum figure. Another 0.4 per 10,000 Swedish teenagers had the combination of Asperger Disorder and mild mental retardation. In 1993, Ehler and Gillberg did a total population study and reported a minimum rate of 36 per 10,000 Swedish children (age 7- 16 years). When the suspected and possible Asperger cases were included, the prevalence rose to 71 per 10,000 children.

## Birth Factors

Nearly half of the patients seen by Wing (1981) had a history of pre-, peri-, or postnatal complications such as anoxia at birth. However, Szatmari et al. (1989) found that complications during pregnancy or the neonatal period in the patients with Asperger Disorder were about the same as those in the control group.

## Genetic Factors

Asperger (1944) considered the syndrome to be genetically related. He reported that the characteristics tended to occur in families, especially in fathers, of those with the syndrome. Wing (1981) noted that 5 of 16 fathers and 2 of 24 mothers of children with Asperger Disorder had behavior resembling that found in Asperger Disorder. Gillberg reported that fathers often had very similar clinical features to sons with Asperger Disorder. The 28 patients with Asperger Disorder in the study by Szatmari et al. (1989) came from 26 families. These patients included a pair of identical twins and another pair who were brothers. A fifth child with Asperger Disorder had a retarded autistic brother; another subject had a sister with schizophrenia. At present, the evidence for genetic factors is only suggestive.

## Neurological Factors

Some investigators emphasize delayed motor milestones and motor clumsiness and argue for including these features as diagnostic criteria. Other investigators, however, question the diagnostic validity and reliability of these clinical features as they had been defined in the literature. Manjiviona and Prior (1995) compared the motor impairment levels of children with Asperger Disorder and high functioning Autism *using* a standardized test, the Test of Motor Impairment-Henderson Revision. The two groups did not differ on either total or subscale impairment scores. About 50% of children with Asperger Syndrome and 67% of autistic children showed motor impairment.

## Neurophysiological Factors

In the series of 23 Swedish children with Asperger Disorder studied by Gillberg (1989), 5 of the 20 boys examined with auditory brainstem response had a prolonged brainstem transmission time. Six of the 21 children had abnormal EEGs.

## **Neuroanatomical Factors**

CT Scan Studies -Three of the IS children with Asperger Disorder studied by Gillberg (1989) had slight or moderate atrophy of the brain. Jones and Kerwin (1990) reported left- temporal-lobe damage in an adult with Asperger Disorder. Berthier et al. (1990) reported one patient had left frontal macrogyria; the other patient had bilateral opercular polymicrogyria.

SPECT Studies -Ozbyrak et al. (1991) reported a patient with Asperger Disorder had left occipital hypoperfusion.

MRI Studies -Five out of the seven males with both Asperger Disorder and Tourette Disorder had cortical defects involving the right central per-Sylvian area, widening of the Sylvian fissure and partial exposure of insular cortex hypoplasia of the right temporo-occipital cortex, enlargement of the right lateral ventricle (Berthier et al. 1993).

## **Neuropsychological Factors**

Asperger Disorder group exhibited a higher VIQ and lower PIQ in comparison to the High Function Autism group. The Asperger Disorder group had more severe deficits in fine motor skills, gross motor skills, visual-motor integration, visual-spatial perception, visual memory, and nonverbal concept formation than that of the HFA group (Klin et al., 1995).

In a sex-, age-, and IQ-matched study, Asperger Disorder group seemed to be associated with higher full-scale and verbal IQ, lower pragmatic skills than that of the High-Functioning Autism (Ramberg et al., 1996).

On the Wechsler Intelligence Scale for Children-Revised (WISC-R), children with Asperger Disorder had good verbal ability, but scored low on Object Assembly and Coding (Ehlers et al., 1997)

## **Clinical Course and Prognosis**

Asperger Disorder tends to be recognized somewhat later if there is no obvious motor delays or motor clumsiness. Usually it is recognized when children start attending kindergarten or elementary school classes. Difficulties in social interaction become more apparent and idiosyncratic or circumscribed interests (e.g., a fascination of bridges or maps) begin to occupy much of these children's time.

Szatmari et al. (1989) reported that individuals with Asperger Disorder seemed to improve with maturity, even into adulthood. Asperger (1944) and Gillberg (1991) also described the outcome of children with the syndrome to be "good." However, Wing (1981) described the outcome of persons with Asperger Disorder as being rather poor. There is a strong tendency for the abnormalities to persist into adolescence and adult life (American Psychiatric Association, 1994); and it seems that they represent individual characteristics that are not greatly affected by environmental influences.

Asperger (1944) reported that only one in 200 of his cases developed symptoms of schizophrenia. In Wing's (1981) series of 18 patients with Asperger Disorder, three subjects developed schizophrenic or psychotic symptoms. Gillberg (1991) stated that a wide variety of "bizarre" and "borderline" behaviors occurred in late adolescence and adult life in Asperger Syndrome, but classic schizophrenia was very rare.

Some reports have implied that patients with Asperger Disorder may be predisposed to violent behavior, Scragg and Shah (1994) reported that about 1.5% of patients in a secure (forensic) hospital met diagnostic criteria for Asperger Disorder. Although extensive review of the literature did not find strong support of the speculation that violence was common in Asperger Disorder, Clinically, individuals with Asperger Disorder appears to have tendency to talk about violence and death and to read or watch violent TV/movies.

Tantam (1986) reported a follow-up of eighty-five adults with Asperger Disorder and noted that 30 (35%) had psychiatric disorders (mania only, 4; mania and depression, 4; depression psychosis only, 2; schizophrenia, 3; hallucination, 4; epileptic psychosis, 1; depression only, 5; anxiety only 4, depression and anxiety 2; and obsessive-compulsive disorder, 2). Tantam also reported the following social adjustment of adults with Asperger syndrome in two

samples (Nottingham and Medical Research Council of England): higher education, 11% & 4%; employed currently, 22%, 9%; in residential care, 16%, 53%; living independently, 7%, 3%; living with parents, 71 %, 41%; interest in sexual relations, 76%, 76%; heterosexual relations ever, 15%, 1%; married, 1 %, 2%.

## Intervention

The **key** to effective intervention of individuals with Asperger Disorder is early identification and intervention based on a comprehensive approach at multiple levels.

- **Psychological Interventions** - Parents of persons with Asperger Disorder should receive "family counseling" which would include a careful explanation of the disorder, realistic expectation of the child, and resources for obtaining support. It is critical that parents and siblings of persons with Asperger Disorder have healthy mental conditions to carry out intervention plans at home. Some parents and siblings of individuals with Asperger Disorder may have significant personality adjustment with a high degree of anxiety and depression. It is important for parents and siblings to obtain social support through relatives, parent groups, sibling groups and agencies that provide services to persons with Asperger Disorder.

It is critical that parents of individuals with Asperger disorder become knowledgeable and capable of implementing the following interventions at home in addition to the services/intervention provided by professionals for their children with Asperger Disorder.

- **Cognitive Therapy** - Individual cognitive psychotherapy may be helpful to older children, adolescents, and adults. The focus of individual cognitive psychotherapy is to help them understand the social behavior of other people and to see how their behaviors can be viewed as unusual by other people. As many individuals with Asperger disorder tend to insist to be "perfect" in their academic works or even in games they play, or have to be the "first to finish" or have to be the "winner." Intensive cognitive therapy should also focus on changing such "attitude" through "daily therapy" till significant "attitude change." Additional therapeutic group experiences would be helpful for these individuals to gain more insight of their disabilities.
- **Social Skill Training** -Both individual and group social skill training are helpful to older children, adolescents, and adults with Asperger Disorder. Some individuals with Asperger Disorder seem to enjoy meeting with other people with similar difficulties/conditions. The therapist working with these individuals should facilitate such social contact within the context of an *activity- or special interest-oriented group*. Children and adolescents with Asperger Disorder tend not to learn social skills naturally. They have to be taught to recognize social cues and how to react to them. They need to be told how to monitor and/or and modify their own inappropriate social behaviors. These skills can be taught through *role modeling, role-play, social stories, cartooning, video recordings, using rules, visual cues, and positive behavioral reinforcement*. To ensure success, the first step is to identify specific measurable target behaviors that needed to be learned. It is important to teach one skill at a time and then build on a repertoire. Each new skill to be learned should be broken *into* smaller components or steps. The new skill should be taught using multiple methods and building in ways that would insure generalizing such skill *in* many different situations or setting.

Group social skills training sessions must be structured with very specific rules. At outset, carefully scripted roles, which specify appropriate responses should be taught and discussed. The individuals would then be taught to know when they are being unintentionally insulting, tactless or inappropriate. Alternative and appropriate skills should be taught and practiced with positive reinforcement strategies (*i.e.*, rewards) to increase the newly learned social skills. Individuals with Asperger Disorder usually do not possess sense of humor, tell jokes, and use metaphors. They tend to literally interpret words and phrases. It is important to teach

how to appreciate humor, jokes, metaphors and ironies, as well as to practice on when to appropriately use them.

- **Behavioral Modification Therapy** - Interventions for individuals with Asperger Disorder should also emphasize on family members and other professional caretakers working closely to shape maladaptive behaviors of these individuals. Some individuals with Asperger Syndrome may argue about anything and everything (e.g., number of pages of story book to read at bed time, which card game to play, disagreement with house or school rules). Some persons with Asperger Disorder may have frequent rage reactions or temper outbursts in response to stress (e.g., frequently afraid of making mistakes or failing in academic or non-academic activities) and frustration (e.g., preservative questions not being responded to or ideas being disagreed). These maladaptive behaviors, if not being dealt with at young age, can significantly affect the outcome of these individuals.

On the other hand, *it* is critical to point out that while the "traditional support therapy" which emphasizes understanding and accepting the individual with a disability may not be an appropriate intervention for individuals who are ego-centered, defensive, and argumentative. It *is* better to use behavioral modification intervention to teach these individuals to obey roles at home, school, work place, and in community. Reasoning, debating, and justifying should be avoided when dealing with children and adolescents with Asperger Disorder because these approaches tend to reinforce their argumentative behaviors.

A few points should be emphasized here. First, behavior therapy program has to be designed for individual children because individuals with Asperger Disorder vary greatly in their handicaps and family circumstances. Some treatment approaches that work in certain cases may not work in others. Second, children with Asperger Disorder tend to have difficulty in generalizing learned experience from one situation/setting to another. Hence, the skills they have learned in a hospital or school tend not to be transferred to the home or other settings. Therefore, it is crucial that specific strategies be included in the individual intervention plan to ensure the changes of that individual's learned behaviors are being carefully monitored, that the problems in each setting are dealt with, and that steps are taken to encourage generalization of behavior changes. Third, since one of the intervention goals is to promote the person's social development and ability to live in a regular community, a home-based intensive behavioral therapy in early childhood, which trains parents, siblings, and local special education teachers to carry out behavior therapies has been instrumental in achieving maximum results.

- Educational Interventions - Preschool or early elementary school children with Asperger Disorder usually receive education through "regular/general education programs." However, the needed supports from the "special education system" to the general regular education system" continue to be weak and inadequate. Educational interventions should be intensive and sustaining. Commitment to help students with Asperger Disorder has to **be strong and persistent**. It may take several years to shape the young children's behaviors and attitudes. It certainly would take much longer time to help the older children or adolescents to "change attitudes." As one of the major "attitude" problem among individuals with Asperger Disorder is "no one believe me." Frequent change of teacher/counselor assigned to work with or to help the students with Asperger Disorder has been the major factor of treatment/intervention failure.

Tests measuring comprehension and abstract problem-solving skills are needed to elucidate fully the type of learning disability seen in these students. Intervention of both the learning disability and social skill deficits can often be accomplished by using cognitive-behavioral techniques. Some "regular education" student peers can be useful in terms of helping their classmates with Asperger Disorder to improve their social interactions. Emphasis has also been placed on giving students with Asperger Disorder opportunities to help younger or lower functioning students in the areas that are the strengths of these students with Asperger Disorder. Such experiences may help these students' self-esteem and social interaction skills. However, a carefully developed monitoring program with adequate adult supervision should be in place when such an intervention/treatment is being implemented. It is likely that initially these students would not work for "moral rewards," but would for "rewards he/she desires." Nonetheless, the goal is to help these students to see that work for people who are not as capable as they are can be rewarding because they can earn "rewards." On the other hand, such an approach may help these students change their attitude toward less capable peers.

Educational interventions should also emphasize acquisition of self-care and job skills. Early application of special motor or visual-motor skills training may be helpful for some clumsy individuals and may prevent further development of motor deficiency. Early application of occupational therapy may provide some skills that can be applied to vocational training. Vocational training should begin as early as possible. The vocational training should be based on a thorough neuropsychological assessment so that individuals with Asperger Disorder are trained for and placed in jobs for which they perform at their maximum potential, and in which they will enjoy the working environment.

The key to have an effective Educational Intervention is to have a true Individualized Educational Plan for each of the students with Asperger Disorder. If a student is very interested in and has a superior skill and knowledge in working with computers, then his/her IEP should include "more time/classes" to maximize the student's potential in the strength areas. Such an Educational Intervention would increase the possibility of ensuring these students staying in school to complete their education needed for higher education or for competitive employments. Such an IEP would increase the students' motivation/incentive to change their attitude positively toward the "system" itself and people (teachers) represent the "system."

- **Pharmacological Treatment** -Although there is little information about pharmacological treatments with individuals with Asperger Disorder, medication can be useful if symptoms of attention deficit, hyperactivity, anxiety, Obsessive-compulsive behaviors, tics, depression, delusions and/or hallucinations, or sleep disorder become significant handicaps. The present author has had successful experience with stimulants (e.g., Ritalin), antidepressants (e.g. Prozac), and medications for obsessive-compulsive disorder (e.g., Anafranil), Tourette Disorder (e.g. Haldol), and sleep disorder (e.g., melatonin), in treating these conditions in individuals with Asperger Disorder. However, this presenter also had seen some older adolescents and adults with Asperger Disorder and other comorbid mental conditions who refused to accept diagnostic conclusion and would not cooperate with any professionals' interventions including medications.

The following clinical conditions in Asperger Disorder are potentially drug responsive. In some of the conditions, the administration of certain drugs has been based on well-documented research in other psychiatric disorders. Here, suggestions are made based on the limited clinical and empirical experiences of the present author and few other investigators, as little research has been done in this field.

- 1) In unusual behaviors such as resistance to change, stereotypes or ritualistic/compulsive behaviors, and abnormal attachments; haloperidol (Haldol), clomipramine (Anafranil), fluoxetine (Prozac), fluvoxamine (Luvox), or paroxetine (Paxil) may be considered.
- 2) In persons with severe hyperactivity, attention deficit, and impulsiveness, but without other neurological disorders such as seizure disorders, Tourette disorder, etc., stimulants such as methylphenidate (Ritalin) may be tried first. guanfacine (Tenex), clonidine (Catapres), or imipramine (Tofranil) may be considered in the individuals who do not respond to stimulants or in those who have other neurological disorders.
- 3) In individuals with *tic-like* symptoms, Haldol or pimozide (Orap) should be tried first because they are more potent than Catapres. In some cases, the combination of Haldol or Orap with Prozac may be needed.
- 4) In depressed individuals with strong family history of unipolar affective illness, tricyclic antidepressant such as desipramine (Norpramin) or other serotonin reuptake blockers such as Prozac, sertraline (Zoloft), or Paxil may be considered. Close monitoring of the drug response is critical in these individuals because the present author and other clinicians had experienced depression episode being switched to hypomanic episode in some cases. Lithium and Depakote may be the drugs of choice in individuals with family history of bipolar affective illness and who develop manic-like episode.
- 5) Some people with Asperger Disorder may become aggressive and physically attack other people. Some of the aggressive behaviors may relate to frustrations of these individuals. They are of great concern because of their more devastating effect. In individuals who exhibit frequent aggressive behaviors and who do not respond to behavior interventions, Haldol or risperidone (Risperdal) may be the drug of choice. Trazodone (Desyrel), carbamazepine (Tegretal), Lithium or Inderal may be considered in patients who fail to respond to Haldol or Risperdal treatment.

6) Unusual sleeping patterns may develop in some children and adolescents with Asperger Disorder. Some children develop complete reversed sleep pattern, that is, they sleep during the day and awake during the night. Some problems may relate to watching TV, listening to music or reading books. The key to solve such a problem is to reverse the sleep cycle through a well-planned regimen and change of the behaviors. Some children with Asperger Disorder seem to need much longer time to settle down for sleep (i.e., having initial insomnia), and/or need less sleep than most normal children. These children tend to keep the whole family awake every night because of their sleep disturbances. Melatonin may be considered first. Some children may respond to antihistamines such as Benadryl, or other medications such as Vistaril (Atarax), or Catapres. In other more severe cases, antidepressant such as Tofranil, or Desyrel may be considered.

7) In individuals with Asperger Disorder who develop clear delusions, hallucinations, and bizarre behaviors including catatonia, Haldol may be the drug of choice. Other antipsychotic medications such as thioridazine (Navane), clozapine (Clozaril), olanzapine (Zyprexa) risperidone (Risperdal), or quetiapine (Seroquel) may also be considered as the drugs of choice.

# "SELF AFFIRMATION PLEDGE FOR PEOPLE WITH ASPERGER 'S SYNDROME"

*Lianne Holiday Willey  
A woman with Asperger's Syndrome*

- √ I am not defective. I am different.
- √ I will not sacrifice my self-worth for peer acceptance.
- √ I am a good and interesting person.
- √ I will take pride in myself.
- √ I am capable of getting along with society.
- √ I will ask for help when I need it.
- √ I am a person who is worthy of others' respect and acceptance.
- √ I will find a career interest that is well suited to my abilities and interests.
- √ I will be patient with those who need time to understand me.
- √ I am never going to give up on myself.
- √ I will accept myself for who I am.