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Aspergers syndrome

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Abstract

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ASPERGERS SYNDROME

A Research Paper
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Aspergers Syndrome Graduate Term Paper

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Aspergers Syndrome has recently become a “popular” topic in the mental health fields. More and more school aged children are being formally diagnosed with the disorder. Yet, many professionals do not truly understand the nature of Aspergers syndrome beyond being a form of autism. In this paper Aspergers Syndrome is defined and compared with Autism and the causes and possible treatments are discussed, particularly from biological and sociocultural points of view.

Aspergers Syndrome

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Classification

Distinguishing Aspergers Syndrome from Other Autism Spectrum Disorders.

Aspergers syndrome is a type of autism, one many call “high-functioning.” ‘Autos’ is the word autism derives from, meaning “self”. Autism occurs on a very vast continuum, including many people who are capable of being self-reliant, those who fall in the middle, and others who are dependent of continual care. Aspergers is a pervasive disorder in which people are not able to look beyond themselves without a great deal of effort. Concern for others is not natural, and understanding the world they live in is often confusing and insignificant to them (Croskin & Miedzianik, 1997).

Aspergers syndrome has not been officially recognized or named for long. The first person to have reportedly identified the difference in criteria for Aspergers was Ssucherewa, a psychiatrist from Russia in the 1920s. However, the disorder was given little attention until two other men, Leo Kanner and Hans Asperger, published findings within two years of each other. Kanner’s publication was well-known, while Asperger’s went mostly unnoticed because he resided in Germany and it was written in German at the end of the Second World War. Attention was once again given to the disorder when

Lorna Wing, in 1981, published an article about a study she had performed on subjects with "Aspergers syndrome". Wing had labeled the disorder, and given it the significance it needed to become well recognized as it is now in many mental health communities (Ghaziuddin, 2005).

Aspergers has now been studied for approximately thirty years, and some progress has been made in understanding parts of the disorder. Aspergers syndrome is a developmental disorder. The syndrome affects every part of life for those who have been diagnosed. Those with Aspergers are different from others who are diagnosed with autism because they have a normal intelligence quotient and normal use of vocabulary skills. However, Aspergers especially affects social encounters for those diagnosed. People will often only focus their interests on a few things or on particular agendas capturing their interests (2005). The symptoms of the syndrome begin to become apparent around preschool age, but a diagnosis is not usually given until children have been in school several years. Professionals want to be certain of the diagnosis, as it a serious disorder to be labeled with and has many negative implications attached to it. However, the diagnosis of Aspergers may be given as early as five years old (Gillberg, 2002).

Sometimes, Aspergers is used to replace the names of other disorders, such as Pervasive Developmental Disorder and Schizophrenia. This occurs frequently, especially when many of the requirements are met for these other disorders, but does not quite fit the diagnosis standards (American Psychiatric Association, 2000, *Diagnostic and Statistical Manual of Mental Disorders*, 4th ed., also known as DSM-IV-TR). Formal criteria were first introduced by Gillberg and Gillberg in 1988, then by Peter Szatmari in

1989, next the International Classification of Diseases and Disorders (commonly known as ICD-10) in 1993, and lastly by the DSM-IV-TR in 1994 (2002). The DSM-IV-TR is the most commonly used, probably due to recognition by the insurance industry, medical community, and especially the American Psychiatric Association. The other sources contradict the diagnosis standards included in the DSM-IV-TR. However, each criteria list seems to have some complications. The DSM-IV-TR and ICD-10 require fewer criteria to be met, enabling an easier diagnosis. They also require no symptoms to be apparent within the first three years of life. The other two criteria lists are more stringent, but Gillberg and Gillberg's list has some gender issue complications, and Szatmari's list limits diagnosis to those people never diagnosed with an autistic spectrum disorder. With the standards set for Szatmari's list, it would be highly unlikely to be diagnosed with Aspergers without having been previously diagnosed with another form of Autism (Gillberg, 2002).

Following are the standards set by the DSM-IV-TR for Aspergers Syndrome:

A. Qualitative impairment in social interaction, as manifested

by at least two of the following:

- (1) marked impairment in the use of multiple nonverbal behaviors such as eye-to-eye gaze, facial expression, body postures, and gestures to regular social interaction
- (2) Failure to develop peer relationships appropriate to developmental level
- (3) A lack of spontaneous seeking to share enjoyment,

interests, or achievements with other people (e.g., by a lack of showing, bringing, or pointing out objects of interest to other people)

(4) Lack of social or emotional reciprocity

B. Restricted repetitive and stereotyped patterns of behavior, interests, and activities, as manifested by at least one of the following:

(1) encompassing preoccupation with one or more stereotyped and restricted patterns of interest that is abnormal either in intensity or focus

(2) apparently inflexible adherence to specific, nonfunctional routine or rituals

(3) stereotyped and repetitive motor mannerisms (e.g., hand or finger flapping or twisting, or complex whole-body movements)

(4) persistent preoccupation with parts of objects

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

D. There is no clinically significant general delay in language (e.g., single words used by age 2 years, communicative phrases used by age 3 years).

E. There is no clinically significant delay in cognitive development or in the development of age-appropriate self-help

skills, adaptive behavior (other than in social interaction), and curiosity about the environment in childhood.

F. Criteria are not met for another specific Pervasive Developmental Disorder or Schizophrenia. (p. 84).

Diagnosis for Aspergers syndrome is difficult because there are so many symptoms which lie on a very wide spectrum, and no two patients have the exact same characteristics. Comorbidity is also a cause of the confusion for professionals attempting to make solid diagnoses. It can be difficult to tell if the symptoms are related to Aspergers or another mental health issue, further complicating an already difficult scenario (Tsai, 2007).

In addition, some of the comorbid conditions display many similar characteristics to those of Aspergers syndrome. Often obsessive-compulsive disorder has to be ruled out due the repetitive nature of both disorders. However, Aspergers displays a more profound issue with social interactions and interests are limited. Another condition often confused with Aspergers is autism, especially since Aspergers is considered to be on the continuum of autistic spectrum disorders. The main difference between autism and Aspergers is language development. In Aspergers, language develops normally while those with autism will have a marked language delay. Many other conditions may be confused for Aspergers, however OCD and autism are the most common (El-Gabalawi, F., Khouzam, H.R., Pirwani, N., & Priest, F., 2004).

Biological Viewpoint.

Cognitive Aspects & Etiology. Presently, Aspergers Syndrome is thought to be primarily caused by biological origins. Most research has focused on biological sources of the disorder. Several different possibilities have been named as possibly causes of Aspergers, but none have been proven conclusively. Some of the prospects are: abnormal metabolism in the brain, contagions causing illness, heredity, and secondary factors such as comorbid conditions (2004).

Approximately 50% of those with Aspergers Syndrome have some genetic link within their immediate family. If people with Aspergers have children, the likelihood of similar genetic characteristics being passed to their offspring is very high. Certain genes, in fact, have been linked to possibly causing the characteristics attributed to Aspergers Syndrome. The chromosomes identified are seven and fifteen (2002).

Children in the same family will often have some of the Aspergers-like characteristics. Some may be diagnosed, while others only display symptoms and characteristics and do not fulfill all the criteria. It is believed in the past those with these symptoms were often found in highly academic environments, where they were able to work as individuals and not attract other people's attention. However, in today's work society, where group work is very common and encouraged, it is more unlikely those displaying Aspergers-like characteristics are able to find work where they are entirely isolated from others (2002).

Aspergers syndrome occurs in the general population approximately .001 to .0026 percent of the time. (Lozzi-Toscano, 2004). This is the most conclusive number to date, however most of the studies have been only done in one area of the world. Experts

believe this percentage could possibly be found to be much higher with further study. Another reason the percentage is so low is because this diagnosis has not been given often, probably because it is a rather new diagnosis. Many professionals are not completely aware of the diagnosis, and its symptoms and characteristics are not well known among the general population as well. This is an issue because people who are around the children or adults with Aspergers syndrome will notice problems and address them with a physician or mental health expert.

Aspergers Syndrome is diagnosed more often in males than females. Females are only diagnosed one fourth as often as males are diagnosed. The incidence in females is much higher when possible cases are added in. One reason females are not officially diagnosed as often as males may depend on the criteria used for diagnosis. Some experts believe the criteria of Gillberg and Gillberg is biased towards males, which requires constricted patterns of interests females rarely possess (Gillberg, 2002).

Some studies have shown autism to have only twenty percent as many cases as Aspergers syndrome (El-Gabalawi, F., Khouzam, H.R., Pirwani, N., & Priest, F., 2004). This number would appear to be extremely high, when considering that Aspergers syndrome is on the autistic spectrum. The next several years will more than likely bring about telling research to justify such claims.

In order to understand the reasons Aspergers Syndrome occurs in some people and not others, several different methods have been utilized to study the brain and the way it works differently in those diagnosed with Aspergers. CT scans, MRIs, PET scans, SPECT scans, and fMRIs are the majority of the different tools used to study the structure and functionality of the brain in these individuals. One finding claims brain imaging

research has found an enlargement of the brain. It is believed that dendrites continue to expand in the brains of those with Aspergers syndrome, and do not prune out unused pathways. If this were truly the case, it would explain why their brains were larger than average. (Bowler, 2007)

Differences have been found in several parts of the brains of those diagnosed with autistic spectrum disorders, such as Aspergers. In the cerebellum, the area near the spinal cord, a decrease of Purkinje cells is notable. The limbic system is another area of concern. Within the limbic system are three crucial areas, the hypothalamus which regulates homeostasis, the hippocampus which stores memories, and the amygdala which handles emotions. The difference seen in these three crucial areas of the limbic system is they are smaller and more tightly compacted than in individuals without any form of autism (2007).

One study found a large discrepancy between the grey and white matter in Aspergers subjects versus non-Aspergers subjects. The volume divergence was 16% for grey matter and 21% for white matter. The grey matter deficits were found in three large areas of the brain, whereas the white matter was lacking mostly within the left brain. Oddly, there was a surplus of white matter around the basal ganglia. No doubt these occurrences are part of the causes for the odd behaviors and difficulties of Aspergers patients (Critchley, et al., 2002).

A hypothesis has also been given regarding the thoughts and actions Aspergers patients repeat over and over. Impaired gating is thought to cause these occurrences in those diagnosed with the disorder. The gating is controlled by the limbic system, and there is some substantiation showing differences within brain structure in those with

Aspergers syndrome. This would cause issues in normal brain development as well (Critchley, et al., 2002).

As mentioned earlier, those with Aspergers have difficulty understanding the world around them and finding significance in the world outside themselves. A concept related to this idea is called the “theory of mind”. The theory of mind states people have a basic understanding that others have experiences and gain knowledge throughout life, sometimes going against concepts taught and learned. The development of this ability usually occurs around the age of four. Feelings and thoughts come together to form new memories and information, allowing people to have empathy for others and express understanding of another’s experiences. However, those diagnosed with Aspergers do not seem to have this “theory of mind” as most people do. They are not able to feel empathy for others, and do not make the connections between feelings and thoughts (Jacobsen, 2004).

An example of the theory of mind not being an ability those with Aspergers possesses follows. During therapy, a young boy was talking with a bee puppet. In the interaction he stated he knew the bee would not sting him, because bees only sting when they are scared, and the boy was not going to scare the bee. The bee responded it sometimes became angry, and when that happened, he might not be able to control himself and sting anyway. The boy answered because he had studied bees, he knew he would not be stung (2004). People with Aspergers generalize information retained, and do not take experiences and feelings and connect the two together.

Central coherence is another cognitive issue those with Aspergers have difficulty. Central coherence is basically learning many details about certain information, but not

being able to connect that information with a specific point (2004). An example would be when a story is told. The people with Aspergers will remember all the details of the story, but will not be able to explain the moral of the story. In some respects, knowing so much information can be a great asset to those with Aspergers, often it causes frustration and anger. People with Aspergers often focus on details, so much so they are overwhelmed by all the information taken in.

Another concept of cognition related to central coherence is called executive functioning. Executive functioning is the ability to multitask, but keep certain aspects of those tasks in perspective. The most relevant issue for those with Aspergers and the use of executive functioning is focus does not shift easily. Focus must be given to one thing at a time, and not be interrupted. This may explain why it is often difficult to gain attention from people with Aspergers, for their focus would have to shift (2004).

Treatments. Treating Aspergers is a very difficult task for many reasons. The disorder is incurable at this point, and it is invasive throughout all aspects of people's lives. People with Aspergers often have difficulty articulating how they feel to physicians and other health professionals. They have obscure sensory issues they may not even be fully conscience of, and with their unconscious sensitivities, professionals may also be unaware of their frustrations (Barnhill, 2007).

Barnhill (2007) highly recommends formal assessment take place before beginning treatment, especially when using medications. Often comorbidity is an issue with Aspergers patients and assessments should help identify other possible issues. Medications should only be used if comorbid issues would clearly be lessened. Some of the comorbid conditions often faced with Aspergers are: attention deficit disorder,

Tourettes, anxiety and mood disorders, learning challenges, unusual social behaviors, and motor difficulties (El-Gabalawi, F., Khouzam, H.R., Pirwani, N., & Priest, F., 2004).

Tsai (2007) stated medication can not help with Aspergers Syndrome itself, as there is no cure for Aspergers. However, medication can help to alleviate some of the symptoms caused by the disorder. Using medications can allow those diagnosed with Aspergers to focus on their daily lives, such as going to school, interacting with family and friends, and maturing with potential.

Some specific medications may help to treat the comorbid symptoms which present themselves. When anxiety is diagnosed along with Aspergers, benzodiazepines and buspirone are two medication options. If panic attacks are experienced, selective serotonin reuptake inhibitors (SSRIs), tricyclic antidepressants (TCAs), Xanax, Klonopin, and Depakote are treatment options. When phobias occur comorbidly with Aspergers Xanax, clonidine, or propranolol are several choices. SSRIs and clomipramine are two recommended to treat Aspergers along with Obsessive-Compulsive Disorder. Major Depressive Disorder and Aspergers can be treated many different ways. Antidepressants, SSRIs, TCAs, haloperidol, and risperidone can be beneficial. Electroconvulsive therapy (ECT) is also another option, but much more serious to consider. Bipolar disorder and Aspergers may be treated using antidepressants, mood stabilizers, antipsychotics, and lithium. ECT may be used as well. Manic Episodes may be lessened using Depakote, lithium, benzodiazepines, Tegretol, and ECT. Attention deficit hyperactive disorder is commonly linked with Aspergers. To treat the symptoms, TCAs, Haldol, Ritalin, Wellbutrin, Concerta, and Adderall all may work in different combinations in individuals

(Tsai, 2007). There are many other options which may work with different individuals, but only physicians or psychiatrists are trained and make those judgments.

Medication can be used to intervene with those diagnosed with Aspergers, however it must be used with other interventions if medication use is going to be effective. What happens is similar to what may happen with others taking medication to try to solve a problem. People often want the easy way out. By taking drugs, patients often feel better thinking the problems are now nonexistent. However, if they forget to take their pills or the person's tolerance to the pills begins to increase, the problems may return, sometimes worse than before. Medication may be taken to help with the symptoms of Aspergers but it is imperative other interventions are also attempted as well. Otherwise, the problems will more than likely return when the medication use stops. With other interventions, the symptoms may be somewhat alleviated and other strategies gained can help fill the void the medication filled (2007).

Another consideration when medication is used as an intervention is involving the client and families of the client when it is feasible. Keeping in mind the maturity level and age of the client, keep the client informed of the benefits, side effects, and general nature of the syndrome. This helps avoid pessimism about taking the medication, and may provide motivation to make medication a priority for treatment. By sharing the information about the medication the parents, not only are the legal implications covered but advocates are created and observations of the effects the medications have can take place more often than when the patients are in professional care (2007).

Frequent visits to physicians are important to regulate the correct dosages of the medications, and to make sure the medications are effective and not harmful to the clients.

Medications should usually become effective within a month, especially if the maximum **dosage** has been administered (2007).

Sociocultural Viewpoint.

Social Aspects & Etiology. Many experts in the past have considered bad parenting to be the root of all types of autism. More specifically, the mother was often blamed for being insensitive to her children when they were diagnosed with the disorder (Jacobsen, 2004). However, this has proven to be incorrect through research. Parenting of questionable nature may exasperate the disorder though, and cause minor problems to become more pronounced.

The main issue distinguishing Aspergers from the other disorders of autism is social deficit. Even though people with Aspergers have extreme difficulty in social circumstances, they highly desire being involved with others and often labor to understand what is happening in social situations (Bock, 2007). They often have trouble deciphering social customs in society and crave to understand and be involved. People with Aspergers will work diligently to create social situations for themselves or develop a strategy to succeed.

Most children diagnosed with Aspergers Syndrome show an interest in making friends. However, most are more interested in making a few close friends rather than many distant friends. The type of friends they are more drawn to those who understand their perspective and are tolerant of their unusual behaviors. Their friends often have interests similar to their focused interests. Therefore, it is to the advantage of diagnosed Aspergers children to have many interests rather than a few intense interests (Jacobsen, 2003).

One of the reasons Aspergers children have difficulty making friends, even when they highly desire friendships, is due to two reasons. First, they are often painfully aware of their handicap, and conversely so, the potential friends are as well. Therefore, the potential friends must be open to relationships with children who are a bit unusual and do not fit into the mold of society. Second, rejection often occurs, leaving negative memories and experiences behind. It is difficult for this population to get beyond those past experiences and be open to new, more positive experiences. Due to the apprehension of rejection by their peers, many Aspergers children do not attempt to make new friends, further isolating themselves. Many of those diagnosed also develop comorbid symptoms relating to their apprehension, mainly anxiety issues and depression (Durocher, Meyer, Mundy, & Van Hecke, 2006).

Very little research has been done outside of the biological aspects of Aspergers Syndrome. Unfortunately, all aspects of Aspergers have the connotation of being negative. According to Bellevile, Mercier, & Mottron, (2000), many people with Aspergers feel their diagnosis is not all negative. Specifically, they believe the limiting interests can be skewed either way, depending on whose perspective is being used. Many of the people Bellevile, Mercier, & Mottron interviewed for their qualitative study found many positive aspects regarding their interests.

One positive feature is the opportunity afforded them due to their interests. For instance, if they are interested in collecting stamps, more often than not, there is a population in which they have much in common. There may be clubs locally, regionally, or nationally which they may be part of, and where they may have the opportunity to travel and meet new people with their same passion and interests. Development may be

encouraged in these individuals which may have not been fostered without these extracurricular prospects (2000).

In the particular study by Bellevile, Mercier, & Mottron (2000), individuals with autism spectrum disorders were interviewed several times regarding their restrictive interests. All were adults, and there was a variety of interests among the group including interests in collecting, music, and obtaining knowledge of a particular subject. In almost every occasion, the participants felt their interests were beneficial to them in some way. They expressed feelings of validation, contentment, anticipation, and relaxation. They also expressed enhancement to their daily lives, increased independence, allowed time alone without distractions, motivation to pursue a hobby, a sense of accountability and distinctiveness, and avoidance of monotony (2000).

The families of these individuals were also interviewed. Many of their reactions were similar to those diagnosed. They appreciated the restrictive interests of their family as they kept the children occupied and out of trouble as they were growing older. Those diagnosed with Aspergers were able to do things on their own and did not need to be entertained. Others often envied the skills and knowledge those with the disorder possessed. The interests frequently connected them to other people who had similar interests, encouraging friendships to be built upon. Most families thought the interests motivated the individuals to become more socially capable.

Sociocultural Viewpoint. In order to help socialize people with Aspergers

Syndrome, a strategy called SODA has been developed. The acronym provides an easy way to remember the process. "S" stands for stop, "O" stands for observe, "D" stands for deliberate, and "A" stands for act. This strategy helps those diagnosed develop a process

of taking social cues, process them, and then act upon the cues given. As those with Aspergers are processing the social cues, talking the process through is encouraged and actually scripted to ease the process. The experimenters of SODA felt it was highly effective with the student being observed. The student studied was able to retain the information of the process and apply the information in social settings very successfully. The student made great improvements in social interactions with other students at school. More experiments were suggested with a larger experimental group in order to confirm the findings of this recent experiment (Bock, 2007).

Psychotherapy is another treatment which deals with the sociocultural aspects of Aspergers Syndrome. A very highly effective way to help treat the diagnosed is to educate the family, teachers, other support professionals, and friends who surround the client. All forms of autism are very complicated, including Aspergers, and by involving everyone surrounding the client, interventions can be more effective.

Several aspects of psychotherapy with this population are imperative. First of all, working just with the children affected by Aspergers is not enough. The entire family must be involved, particularly the parents. All children are expected to be cared for by their parents in a way appropriate for their living situation. With children diagnosed with Aspergers, the situation can often be fraught with guilt, shame, and anger. There is often much more work involved in raising children with Aspergers, and part of the advocacy of counselors is to ease the burden as much as possible for the parents. This, in turn, will allow the parents to be more relaxed with their children and help heighten the potential of the Aspergers patient's future (Jacobsen, 2003).

Another sociocultural treatment for Aspergers may be an aid called the Circle of Friends. This is an aid the client can create with a family member or another professional. It can be considered a project or an assignment. This aid is visual and can be hung on a wall or displayed somewhere for further discussion after the initial information is shared. With a large piece of paper, several large circles are drawn. One represents the client's immediate family. In that circle, pictures of each member are displayed along with their names. Also within the circle the appropriate signs of affection are listed for sharing with those members. In several other circles more distant relatives, close friends, more distant friends, his or her helping professionals such as teachers and counselors, and finally people throughout the community are listed (Attwood, 1998).

Yet another intervention used to build social skills is use of "social stories". This is an intervention done with the assistance of the Aspergers children's parents, with knowledge of the program by his teacher. The reviewed study was of a subject having trouble doing his homework. The subject was behaving in a manner harmful to himself and not conducive to finishing the work efficiently. The researchers taught the parents a story personalized for the boy. In the story, the boy has trouble doing his homework, displays inappropriate behaviors. Then the boy used better coping skills to deal with his frustration and anger, finishing his homework. There were four phases to the experiment, two being baseline and two being social story interventions. From the beginning to the end of all the phases, each targeted inappropriate behavior dropped remarkably. Perhaps the most dramatic difference was what was observed by the boy's teacher at school. Even though no intervention was given at school, the boy with Aspergers began to implement the intervention at school as well. The boy was able to implement the learned

behavior into the classroom from his experiences at home (Adams, Gouvousis, VanLue, & Waldron, 2004).

Several easy interventions are given by Myles & Southwick, (1999). The first intervention is meant to be used when both the parent and children want to be the last speaking in an argument. They call the intervention the "lasting word." Instead of focusing on winning the argument, parents should be concerned their children diagnosed with Aspergers are processing the information, and are able to apply the information learned at a later time. The authors state four steps. The first is to only state what is intended and what the parents intend to carry out, stating it only twice in a pleasant tone. The next step is to request children to restate what has been said and check for comprehension. Make sure comprehension has taken place, using pictures if necessary. Finally, follow through with the plan. Children with Aspergers need rules and feelings of safety more so than children without the disorder, so it is very important to be consistent throughout all conflicts.

Another intervention suggested by Myles & Southwick (1999) is of a very structured routine. Developing a schedule for the entire day is very important to children with Aspergers. They know what to expect and have a sense of safety and control. Part of planning each day is getting the entire family involved, not just those diagnosed with Aspergers. Everyone else's plans affect each other in a household, so it is important everyone has a say in the preparation. All members of the family also need to be part of the arrangement for support plans if things are changed throughout the day. Times of the day when a schedule is especially important are homework times, morning agendas, after-school activities, weekend plans, daily and weekly chores, and bedtime agendas.

Even though executive functioning is caused cognitively, its treatment is done by interaction with others. Being clear and concise is very important. Be as specific as possible when giving directions. Say what is meant, taking pains not to be sarcastic or have a negative vocal tone. Do not assume anything. More than likely, those diagnosed with Aspergers will not understand something unless it is implicitly stated. If adjustments and direction are needed, be positive and straightforward, and the information will prove encouraging to those on the receiving end (Jacobsen, 2004).

Conclusions

Aspergers affects the lives of those diagnosed profoundly. Aspergers Syndrome is known as a diagnosis which moves into every aspect of life, making living everyday a challenge, not only for those diagnosed but also for those who spend their days with the diagnosed. Home life is greatly affected, and high structure usually affects all those who live there. Schools must make accommodations for these students, not only in the basic structure of the day, but socially and academically as well. Their social world is also adapted for those diagnosed with Aspergers Syndrome.

Throughout this paper, classification and etiology of Aspergers was shared, as well as the treatment options available. With this information, all people (especially mental health professionals and other people who spend their time with those diagnosed with Aspergers) can help create more potential for those affected. Socially, at home, and at school those diagnosed with Aspergers can have a fulfilling, potential-filled life.

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