



# **Students with Asperger Syndrome: How They Compare with Students in Other Autism Subgroups and What Can Be Done to Support Them in Higher Education**



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**(2010)**

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## **Introduction:-**

In recent years, the number of individuals who are diagnosed with autism and Asperger syndrome has increased dramatically (Emmons and Anderson, 2005). Both conditions are developmental communication and social disorders that make the individual who has it experience the world differently (Parker, et al 2008) According to Single et al (2001) autism and its associated subgroups affects more than half a million people in the United States and this figure has grown significantly over the last decade. This raises concern and makes autism an international issue.

Asperger syndrome (AS) is part of the autism spectrum (Emmons and Anderson, 2005). The two conditions 'autism' and 'Asperger syndrome' were recognized over 50 years ago during the Second World War (Frith, 2008) when Leo Kanner in 1943 and Hans Asperger in 1944 wrote papers describing two different groups of children with different abilities (Attwood, 1998; Prior, 2003). Leo Kanner, an American physician, studied eleven children (3 girls and 8 boys) who had insistence on routines and experienced severe difficulties in communication and social interaction (Attwood, 1998; Gillberg, 2002). In addition, they were of low intelligence and in some cases possessed 'islets of extraordinary ability' (Gillberg, 2002). Kanner's paper was published in English and was widely known in Europe and the United States (Attwood, 1998).

A few months after Leo Kanner's description, Hans Asperger, a psychiatric doctor, wrote his paper describing four boys who were more able than the children in Kanner's group and had average or above average intelligence. However, they were similar to the Kanner group in their limited communication skills, poor social understanding and narrow interests (Attwood, 1998). Hans Asperger was not aware of Kanner's use of the term 'autism' (Gillberg, 2002). His work did not receive immediate attention for two reasons; first, during the 1940s and 1950s, researchers focused on studying classic autism, as



described by Kanner, in more detail (Prior, 2003), and second, because his paper was written in German, it did not reach the research community until 1991 when Uta Frith translated Asperger's paper into English (Gillberg, 2002; Eastoe, 2005). Since then, much research has been done in order to study the aspects of both conditions and to investigate the impact of autism spectrum on individuals' lives. This consequently has led to a better understanding of the unique characteristics and needs of individuals with autism or Asperger syndrome.

The focus of this paper will be with Asperger syndrome and how to meet their special needs in higher education. As part of the teaching staff in the Special Education Department at King Saud University, I hope that this paper will be a valuable source of information and a guide for teaching staff in Saudi colleges and universities who want to increase their knowledge about this condition and make their practice more professional and efficient. This consequently will reflect positively on the achievement and progress of our students with Asperger syndrome in Saudi colleges and universities.

The paper will first illustrate the characteristics of Asperger syndrome by giving some definitions written by professionals in the field and by individuals who have Asperger syndrome. Second, a comparison will be made between Asperger syndrome and other subgroups of autism (autistic disorder, Rett's disorder, childhood disintegrative disorder, and pervasive developmental disorder not otherwise specified (PDD-NOS) in order to show the similarities and differences between them. Third, some difficulties that face individuals with Asperger syndrome in adulthood will be discussed especially those difficulties associated with their academic life in college and university. Finally, diagnosis services and support for students with Asperger syndrome at Saudi colleges and universities will be discussed and mentoring advice will be given to teaching staff in terms of how to offer the right assistance to students affected by this condition in order to help them to achieve and succeed as other students do.



## **Definitions of Asperger syndrome:-**

Asperger syndrome is a "lifelong condition" (Eastoe, 2005). It can be defined as a "neuropsychiatric" syndrome (Gillberg, 2002) which affects boys more than girls (Colley, 2004). It causes three major impairments known as the triad of impairment (Eastoe, 2005). The first difficulty is in social interaction and relationships the second is, in verbal and non-verbal communication, and the third, in ability to imagine and flexibility of thought and behavior (Jamieson and Jamieson, 2004). According to Gillberg and Gillberg (1989), Asperger syndrome is characterized by difficulties in, social interaction, speech and language peculiarities, and impairment of non-verbal communication and motor skills. In addition, the person with Asperger syndrome has narrow interests and compulsive need for adhering routines and interests (Gillberg, 2002). Attwood (1998) has indicated that the pattern of Asperger syndrome, as described in Hans Asperger's paper, includes difficulties in showing empathy and in making friends. In addition, the person who has this syndrome shows one-sided responses, clumsiness in movement and has intense and narrow interest (Attwood, 1998).

From their own perspective, individuals with Asperger syndrome, consider it to be a mental difference rather than a physical difference (Bill, 2010). Gunilla Gerland, a writer and lecturer with Asperger syndrome, has defined it as a hidden disability as it makes it difficult for other people to realize that you have some difficulties unless you explain the condition to them (Gerland, 2000). A major difficulty that is not obvious to other people is how changes in routine can be very confusing to the person with Asperger syndrome. Another hidden problem is how being in a group of people can be very stressful and overwhelming to them (Gerland, 2000; Myles and Adreon 2001).-Other difficulties will be discussed in detail below in the section, 'The difficulties that can face adults with Asperger syndrome'-

Apart from these challenges, different thinking has some advantages and positive influence on the life of an individual with Asperger syndrome. Some of the students with



Asperger syndrome have the ability to invent new ways and ideas that no one has thought about before (Gerland, 2000). Some of them also indicate that they have the ability to concentrate in their special interest for long periods of time which helps them a lot in their academic life (Eastoe, 2005). It is worth mentioning that individuals with Asperger syndrome are not a homogeneous group and every person has different abilities and needs (Beardon, Martin and Woolsey, 2009).

In the light of these explanations, it can be said that a person with this syndrome interpret information and understands the world differently than the typical person does which consequently leads to unique characteristics, behaviors and responses to their environment. Therefore, individuals with Asperger syndrome might need special education services and support (depending on the severity of the condition) in order to meet their special needs and to help them to overcome the difficulties that they experience in their daily life.

### **The differences and similarities between Asperger syndrome and other autism subgroups:-**

In order to provide the right support and intervention for individuals with Asperger syndrome, it is essential to distinguish this syndrome from other subgroups. Thus, a comparison will be made between Asperger syndrome (AS) and autistic disorder, Rett's disorder, childhood disintegrative disorder, and pervasive developmental disorder not otherwise specified (PDD-NOS) in order to show these major differences and to illustrate their unique characteristics.

Asperger syndrome and autism are both similar in that they affect boys more than girls, and both cause abnormal behavior and impairment in social interaction and communication (Fitzgerald and Corvin, 2001). However, in Asperger syndrome this delay appears after the first three years (Gillberg, 2002). In addition, individuals with



Asperger syndrome make progress in their expressive language in childhood more than children with autism (Schopler, Mesibov and Kuncze1998). Generally, individuals with Asperger syndrome can speak fluently; however, they have "unusual speech and language characteristics" (Attwood, 1998). In terms of social interaction difficulties, individuals with Asperger syndrome are less severe in this area (Fitzgerald and Corvin, 2001). Furthermore, individuals with autism differ in their cognitive ability. They have learning disabilities and approximately half of them exhibit an IQ below 50 (Fitzgerald and Corvin, 2001) whereas individuals with Asperger syndrome have average or above average intelligence and are unlikely to have learning difficulties (Jamieson and Jamieson, 2004). Although high- functioning autism (HFA) is more likely to be a source of diagnostic confusion, there are some obvious differences between Asperger syndrome and high- functioning autism. According to Volkmar and Klin (1995), Asperger syndrome differs from high- functioning autism in that individuals with Asperger syndrome show higher verbal IQ in contrast to Performance IQ (the opposite of autism) and appear less impaired socially (Cited in Schopler, Mesibov and Kuncze, 1998).

Rett's disorder and childhood disintegrative disorder are unlikely to cause diagnostic confusion. As mentioned previously, Asperger syndrome affects boys more than girls whereas Rett's disorder mostly affects girls (Fitzgerald and Corvin, 2001). The child with Rett's disorder develops normally during the first 5 months of life and then has deceleration in head growth and has problems in language, coordinate gait and social engagement. In cases of childhood disintegrative disorder, the child loses language, motor skills and bowel and bladder control after two years of normal development. Both Rett's disorder and childhood disintegrative disorder require detailed development history and physical examination in order to make the right diagnosis (Fitzgerald and Corvin, 2001). Asperger syndrome also differs from the Pervasive Developmental Disorder - Not Otherwise Specified (PDD-NOS) subgroup. PDD-NOS is a diagnosis given when the child has impairment in communication skills associated with reciprocal social interaction or with stereotyped behavior, activities and interests (Fitzgerald and Corvin, 2001). A PDD-NOS diagnosis is given when the



child does not meet the criteria of any subgroup on the autism spectrum (Autism Society, 2008). In the past, PDD-NOS was a synonym for Asperger syndrome, especially in the United State (Fitzgerald and Corvin, 2001).

### **The difficulties that can face adults with Asperger syndrome:-**

A diagnosis of Asperger syndrome carries with it many difficulties and challenges to the person who has it. Asperger syndrome affects the individual's life in different ways depending on the severity of the condition and on how much support the person receives from his or her family and the community. This section will discuss the difficulties that face adults with Asperger syndrome, especially the problems that are associated with their academic life at university or college.

First, in terms of language and communication issues in adulthood, individuals with Asperger syndrome might have problems in organizing their ideas and putting them in a coherent sequence (Myles and Adreon, 2001). They also have problems in understanding non-verbal cues such as, eye contact, gestures and facial expressions. This affects their ability to communicate with others and prevents them from carrying on a conversation which in turn leads to missed social opportunities. Moreover, they have difficulties in considering other people's perspective in a conversation which causes one-sided responses and difficulties in recognizing whether the other person is still interested in their talk or not (Myles and Adreon, 2001). Some researchers, however, indicate that the language issues might be improved over time as compared to the social interaction which remains a long-term impairment (Taylor and Knott, 2007).

In terms of social difficulties, individuals with Asperger syndrome have problems in understanding social rules which consequently makes them confused in social situations. In addition, being in a group of people can also be challenging and overwhelming for them (Gerland, 2000; Jamieson and Jamieson, 2004). With regard to friendships, some individuals prefer to be left alone and to not have



friends (Eastoe, 2005). On the other hand, others have the desire to make friends, but lack the social skills necessary to forming and maintaining relationships. The result is social exclusion (Jamieson and Jamieson, 2004; Myles and Adreon, 2001). Another social issue is that they can be a target for bullying and teasing which results in depression and emotional problems (Beardon, Martin and Woolsey, 2009; Gillberg, 2002).

As for academic challenges, the first days at university can be very confusing and overwhelming to the student with Asperger syndrome due to the crowds and the new environment (Harpur, Lawlor and Fitzgerald, 2004). They also can experience enormous anxiety when a timetable is changed or when they are in unpredictable contexts or even in normal situations (Taylor and Knott, 2007; Dubin, 2010). Additionally, students with Asperger syndrome have problems with self-organization and show difficulties in planning their time and meeting deadlines (Harpur, Lawlor and Fitzgerald, 2004; Taylor and Knott, 2007). According to Taylor and Knott (2007), the most recognizable academic difficulty is the failure to hand in coursework on time due to poor timekeeping. They also often find multi-tasking difficult and prefer to finish tasks one at a time instead of starting and working on many tasks at once

Another academic challenge related to problem-solving skills. Student with Asperger syndrome might show advanced ability in solving problems that are related to their special interests but lack these skills or show ineffective approaches when it comes to solving day- to- day problems (Myles and Adreon, 2001). They also have some fears of trying new things (Gerland, 2000) or making decisions in unfamiliar environments because they cannot predict the effects of their choices (Harpur, Lawlor and Fitzgerald, 2004). Another issue is the odd behaviour of students with Asperger syndrome in public spaces such as lecture rooms or halls which can be misunderstood or interpreted wrongly by staff (Taylor and Knott, 2007). Furthermore, students with AS lack social networks and this might lead to anxiety. For example, having missed a lecture, a student with Asperger syndrome





often has no one to lend him the notes. Students with AS could also be reluctant to ask fellow students or staff for help when instructions are unclear to them. This can make them frustrated and depressed (Taylor and Knott, 2007). Students who have Asperger syndrome find working in groups challenging due to the social demands that are required and to their inability to adjust to the group rules. On the other hand, they sometimes participate by doing all the work by themselves which is appreciated by their peers who will have nothing required of them (Gillberg, 2002).

The ASPECT consultancy study (2006-2007) is a comprehensive study that aims to explore the academic challenges that affect students who have formal diagnosis of Asperger syndrome or of high- functioning autism or students who had not been given a formal diagnosis in higher education institutions in the United Kingdom. It also aims to explore the local authority service that provides for 238 adults who have AS or HFA. Luke Beardon, of the Sheffield Hallam University Autism Center, a professional in the field and a parent of an adult in the spectrum, and the late Genevieve Edmonds, an author with Asperger syndrome, devised a questionnaire to examine the possible challenges and the amount of support that learners experienced at college or university. A total of 238 questionnaires were received and 135 students reported that they experienced challenges at college or university. These challenges were grouped into four categories: "social interaction", "course structure/ curriculum requirements", "college or university social environment", and "understanding of Asperger syndrome or high- functioning autism (self and other)" (Beardon, Martin and Woolsey, 2009).

The finding was as follows: 54 students reported challenges in social interaction such as working in a group, and 35 students had problems with meeting curriculum demands or with the course structure. In terms of the understanding of Asperger syndrome and high- functioning autism, 32 students reported challenges related to people's perspective of AS/HFA or difficulties associated with their own understanding of to the condition. With respect to the difficulties related to the social environment, 29 students identified social environment difficulties at college or



university (Beardon, Martin and Woolsey, 2009).The second part of the questionnaire investigates the amount of support. Fifty per cent of the students who had Asperger syndrome and (60%) of those with high-functioning autism indicated that they received the support that they needed at college or university whereas less than 19% of the students, who were not diagnosed formally, had been supported. From these figures, it can be argued that the formal diagnosis is the "gateway" to accessing services. However, this can be problematic because of the scarcity of effective diagnosis services for adults. As a result many students at colleges and universities have under-diagnoses and do not have access to the services (Beardon, Martin and Woolsey, 2009).

It seems that developing a deep understanding of the difficulties and challenges that face the students with Asperger syndrome is essential in order to provide suitable assistance and to effectively and supportively meet their special needs in higher education institutions.

### **Diagnosis services and support for students with Asperger syndrome at Saudi colleges and universities:-**

According to Taylor and Knott (2007) from the University of Reading, arranging diagnostic assessment for college or university students, who appear to be on the spectrum is still very difficult and it seems that the services are limited on the students who arrived at university with a diagnosis of autism or Asperger syndrome already (Taylor and Knott, 2007).Currently in the Kingdom of Saudi Arabia, due to the lack of awareness and services there are no statistics showing the number of the students who have Asperger syndrome or high- functioning autism in higher education institutions. It would, therefore, be sensible and desirable for diagnostic clinics to be established in conjunction with the centers of special education services of Saudi universities and colleges in order to identify the students who are in the spectrum. This step is considered as fundamental and vital in the process of enhancing services for adults with Asperger syndrome or high- functioning autism in higher education.



In addition, the lack of knowledge about Asperger syndrome in the Kingdom of Saudi Arabia also leads to misunderstanding of the behavior of the students with this condition which has a negative impact on their academic achievement and progresses. Therefore, it is strongly suggested the teaching staff be educated about autism spectrum and Asperger syndrome. Raising their awareness will make their practice professional and more effective, and more importantly, it will make the students' experience in the college or the university positive, pleasant, and less stressful.

#### **Advice for teaching staff for supporting students with Asperger syndrome:-**

Teaching staff need to consider how to support students with Asperger syndrome and meet their academic, social, and emotional needs in higher education institutions in the Kingdom of Saudi Arabia. As mentioned, students with Asperger syndrome have many academic challenges related to the environment of the college or the university or to their own difficulties such as planning and self- organization. It is suggested that the environment be made as predictable as possible for the student from the first week by providing the academic course timetable in advance, sending campus maps, and clearly giving the location of the relevant rooms, halls, teaching staff offices and student services that are available at the university. Generally, the student with Asperger syndrome will need extra time to feel familiar with the environment; therefore, it is strongly recommended a college or university tour be arranged during vacation break for these students to help them to consider the environment in advance (Harpur, Lawlor and Fitzgerald, 2004). This also can be helpful in reducing the feeling of anxiety and confusion in the first days. Another important point related to the environment is that staff members have to bear in mind that sudden changes in timetable or rooms can be extremely overwhelming to the student with Asperger syndrome. Therefore, these changes should be avoided or reduced as much as possible, or if they are necessary, the staff member should



report these changes in advance in order to help the students cope successfully in the college or university environment.

In terms of the tutorial, regular and individual tutorials are recommended to support the student who has problems with self-organization and time management. Taylor and Knott (2007) argued that academic mentoring is essential to support the student to hand in coursework by the deadlines and to prepare him or her for the examinations which can be problematic and challenging to the student because of the lack of the structure at the university and the significant emphasis on independent learning.

Besides that, regular emotional support is also required to meet their special emotional needs. Taylor and Knott (2007) indicate that the academic difficulties that face the student with Asperger syndrome in university can result in anxiety disorder and increase in obsessive-compulsive behavior or can lead to depression. Training the student to recognize his feelings can be very helpful in reducing the emotional problems they experience during their studies.

In addition, faculty and staff need to understand the social needs of students with Asperger syndrome by not having high expectation of the students with respect to participating in group work, social interaction and following the social rules which might be considered by neurotypical people as obvious and spontaneously followed. Furthermore, teaching staff have to take into consideration the communication difficulties that the student has in terms of verbal and non-verbal communication. It is recommended that instructions be clear and simple as possible and that written content of the important points be provided instead of completely relying on verbal instructions and assuming that the student will understand what is required from him.



## **Conclusion:-**

Asperger syndrome is part of the autism spectrum and was discovered by Hans Asperger in 1944. The condition is considered as a "neuropsychiatric" syndrome and a "lifelong condition" which causes difficulties in three areas, social interaction, verbal and non-verbal communication and flexibility of thought and imagination. The major differences between Asperger syndrome and autism are that the person with Asperger syndrome does not have a delay in language, is less impaired socially and has average or above average intelligence. Rett's disorder, childhood disintegrative disorder and PDD-NOS are unlikely to cause diagnostic confusion.

Individuals who have Asperger syndrome experience difficulties with language and understanding verbal and non-verbal communication, such as, eye contact, facial expression, gestures, and with considering other people's perspective in conversation. Academic difficulties that affect their academic progress include problems with self- organization, meeting deadlines and working in groups. The social difficulties include an inability to understand social rules and make friends and a lack of an effective social network. There is, however, a lack of awareness and services when it comes to diagnosis services in the Kingdom of Saudi Arabia and teaching staffs could benefit from advice- in terms of how to offer the right support and meet the academic, social and emotional needs of the student with Asperger syndrome in college or university.

With the appropriate services and support, students with Asperger syndrome can reach their potential and be capable of achieving and succeeding equally with other students. Therefore, Higher education institutions in the Kingdom of Saudi Arabia have to be more prepared and willing to adjust their system to meet the special needs of these students. Additionally, teaching staff in Saud colleges and universities need to increase their knowledge about the challenges and difficulties that are associated with this condition. In this way, faculty can avoid any possible



misunderstanding about the student behavior and can provide the right support to the student. The goal is to have a positive influence on the student's academic life and to generally enhance services and support that are provided to adults with Asperger syndrome in the Kingdom of Saudi Arabia.



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