Asperger's Syndrome

What is Asperger's Syndrome?

Asperger's Syndrome is also known as Asperger's Disorder, Asperger's, Asperger or, simply, AS. Asperger's Syndrome is considered to be an Autistic Spectrum Disorder (ASD). The condition is named after an Austrian paediatrician, Hans Asperger, who in 1944 observed children with reduced empathy with people, who had difficulties with non-verbal communication skills and who were somewhat clumsy.

Different sets of diagnostic criteria were described by Gillberg and Gillberg in 1989 and by Szatmari also in 1989. In 1992, Aspergers was added to the most recent edition of the World Health Organisation's Diagnostic Manual, International Classification of Diseases (lCD-10) and in 1994 it was included in the fourth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) of the American Psychiatric Association. However, it should be said that there are many questions asked about the lCD-10 and DSM-IV classifications and also in general about the use of the term Asperger's Syndrome.

Symptoms

Asperger's Syndrome is described as a pattern of symptoms including a qualitative impairment in social interaction, stereotypical, restricted patterns of behaviour, interests and activities and (generally but not universally) by the lack of a clinically significant delay in cognitive development or general delay in language. There are other symptoms which are often found which are not necessary for a diagnosis; these include an intense preoccupation within a narrow field, physical clumsiness, verboseness and a restricted prosody ie patterns of stress and intonation in language.

i) Social interaction

People with AS experience difficulties in social interaction which can include a failure to develop friendships, a lack of social or emotional reciprocity, a failure to share enjoyment or achievement with others, together with impaired non-verbal behaviour eg facial expression, eye contact, gesture and posture.

In general, people with AS do not distance themselves from other people — a feature which is considered to differentiate them from people with autism — and without reference to the listener's own emotional state may engage in a one-sided monologue about a particular interest of theirs in a rather socially awkward way which can appear as insensitivity. Whilst they may have an abstract knowledge of the requirements of social interaction, they appear unable to put such knowledge into practice in everyday social relationships. Alternatively or additionally, in order to cope with such situations, they may adopt rigid patterns of behaviour in responding which again can appear awkward and artificial. Withdrawal from social contact can occur as a result of repeated apparent failures in social interactions.

ii) Restricted, repetitive and stereotypical patterns of behaviour, interests and activities

People with AS may show behaviours and engage in interests and activities which are restricted, repetitive and at times very unusually intense. They tend to stick to apparently inflexible non-functional routines, may show habitual movements ie finger or hand twisting or whole body movements and preoccupy themselves with parts of objects.

The adherence to narrow and quite specific areas of interest is a major feature of AS. People with AS may research in detail a very narrow topic with little understanding of the broader topic. Sometimes the topic of interest will change but in general becomes more unusual or more focused.

iii) Speech and language issues

Most classifications of AS include the requirement that the person's language develops without significant general delay, though there are some diagnostic classifications which require a delay in language development. Often, people with AS show an unusual use of language. Language difficulties of AS people include an over literal interpretation, a difficulty in understanding metaphor and nuance, verbosity, unusually formal or pedantic idiosyncratic speech and abnormalities with pitch, loudness, intonation, rhythm and prosody.

Children with AS quite often even when young have an unusually mature vocabulary but use language in a

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literal and practical sense rather than in a metaphorical sense. Thus, they often have difficulty with teasing and humour. Though they usually have the cognitive ability to understand humour they seem to lack an understanding of the social interaction aspect of humour.

iv) Miscellaneous symptoms

Though these symptoms are not necessary to the diagnosis of Asperger's, the following symptoms are often found in people with Asperger's.

A number of observers report the presence of physical clumsiness. Children with AS can show a delay in manual dexterity ie in such tasks as unscrewing a jar or in more gross motor tasks such as riding a bike. Often, children with AS appear to move awkwardly, to have an unusual posture or gait, poorly coordinated handwriting or difficulty with visuo-motor integration. Other children with AS may have difficulties with the sense of proprioception (awareness of body position), with apraxia (a disorder in motor planning) and with balance. Other symptoms include sleep problems and a difficulty in identifying and describing one's

Prevalence

The rates of prevalence of AS vary considerably according to different research, depending on the diagnostic criteria used. A prevalence rate of 0.25 per thousand up to 2.9 per thousand appears to be the usual range. Research studies generally indicate a higher proportion of boys than girls with AS, with rates varying between approximately 1.5:1 to 4:1.

Although there is evidence that approximately one in five children with AS tend to grow out of it, there are very few long-term outcome studies of children with AS, but it is apparent that for many people with AS the symptoms continue into adulthood.

Co-morbidity

As is co-morbid with a number of other syndromes, meaning that a person with AS is more likely than a person without AS to also show other syndromes.

In terms of learning difficulties, there appears to be a considerable degree of co-morbidity with ADHD and a syndrome known as non-verbal learning disorder. So far as mental health is concerned, there is a considerable degree of co-morbidity between AS, anxiety disorder and depression. AS is also associated with Tourettes Syndrome, tics and bipolar disorder.

Causation

AS is usual in many such syndromes, many hypotheses have been advanced to explain the reason(s) for Asperger's Syndrome. Most research

tends to indicate that all autistic spectrum disorders have shared genetic mechanisms with the possibility that there is a common cluster of genes which render an individual more liable to develop AS.

In former years there were hypotheses that autism developed as a result of inadequate parenting or trauma. That theory is now discredited and parents should not feel guilty if they have a child with Asperger's Syndrome. However, there is a variety of evidence from brain imaging studies that indicates along with neuropsychological assessment that Asperger's Syndrome tends to be associated with some dysfunction of the frontal and temporal cortex, precisely the medial pre-frontal and orbitofrontal areas of the frontal lobes, the superior temporal sulcus and inferior basal temporal cortex. These areas are often considered to represent "the social brain". However, there is also evidence of dysfunction of the basal ganglia, amygdale and cerebellum. Other research suggests that there is weak connectivity between these areas.

There is some research (Volkmar, 1998) that, using strict diagnostic criteria, about 20% of fathers and 5% of mothers of a child with Asperger's also themselves have the syndrome, even if they have not been formally diagnosed as such. Using a wider description of Asperger's Syndrome, almost 50% of first-degree relatives of a child with Asperger's have similar symptoms (Bailey, 1998). In considering second- and third-degree relatives, more than two thirds of children with Asperger's Syndrome have a relative with a similar pattern of abilities.

Along with inadequate parenting, many environmental factors have been hypothesised as being causative, but there is little good research evidence for the validity of such factors.

Neuroanatomical studies and the fact that some AS individuals have been shown to have exposure to teratogens (agents causing birth defects) during the first few weeks from conception indicate that there may be some alteration in brain development shortly after conception. It is possible that unusual migration of cells during the development of the foetus may alter the connectivity and finished structure of the brain, which could result in changes in the neural

circuits that mediate behaviour and thought. Several such theories exist, but it does not appear that any one theory is universally valid.

A hypothesis such as the underconnectivity theory suggests certain high-level neural connections and synchronisation which are under-functioning. The "opposite" theory ie that of enhanced perceptual functioning, links with the underconnectivity theory to suggest that AS individuals can focus more on specifically oriented and perceptual operations with limited ability to see "the big picture". A further theory ie the Mirror Neuron System (MNS) has as its core that changes to the development of the MNS lead to one of the major features of Asperger's ie social impairment through interference with the process of imitation. Other possible theoretical models include a dysfunction in the cerebellum and serotonin dysfunction.

Diagnosis

Parents often notice differences in a child with Asperger's from an early age, possibly as early as 24 to 30 months. Developmental screening is a valuable tool in identifying symptoms that need further investigation.

The diagnosis of Asperger's usually involves a multi-disciplinary team observing and rating the child in a variety of settings. Such an assessment will often include genetic, neurological, neuropsychological, educational and adaptive skills. Generally, the diagnosis of AS is made between the ages of 4 and 11. The diagnosis of AS in adults is often more difficult, partly because the usual diagnostic criteria are based on observation of children and some symptoms of AS can change as the person ages.

There exists an ongoing polemic about whether AS is or is not the same syndrome as HFA (High Functioning Autism).

Management and Treatment

It is usually considered that attempts should be made to manage symptoms that cause distress and to teach skills relating to social and communication issues that are not generally developed by AS children to an age-appropriate level together with interventions based on the needs of the individual child.

Whilst there is a general agreement of the advantages of an early diagnosis and appropriate treatment methods being introduced at an early stage, there is no one package that is of universal applicability to every child. However, an illustrative package might include the following elements:

social skills training to aid interpersonal

relationships; psychological therapy to address issues of anxiety and depression.

attempts to reduce the number of repetitive routines and obsessional behaviours, perhaps most controversially, medication for conditions such as anxiety and depression.

occupational or exercise therapy to address issues of motor coordination and poor sensory integration

interventions dealing with social communication, usually delivered by a speech and language therapist to assist the language communication exchange between people
support and education of parents particularly with regard to behaviour strategies of use within the home.

For certain of these treatments, there is limited evidence of their efficacy. However, there is good evidence with regard to helping parents in managing the behaviour issues of AS children.

Educational Support and Placement

Some children with Asperger's Syndrome may have special educational needs which require attention.

Many children with Asperger's Syndrome attend mainstream school although others will attend specialist schools.

Within mainstream education in the UK children with AS may, according to their special educational needs, be placed on the stage of School Action or School Action Plus. Alternatively, if their special educational needs are more marked, they may be statemented as a pupil with special educational needs. Details of these stages of the Code of Practice (2001) will be found in the further Appleford fact sheet: Getting help your special needs child.

It is expected that a mainstream school will make appropriate provision which might involve a differentiated curriculum, additional help, alternative teaching methodologies, for instance.

Smaller, specialist schools usually have a greater concentration of specialist resources together with a more protective environment for children who are vulnerable. Smaller class sizes and a whole school curriculum devoted to the needs of children with special educational needs can be beneficial.

The education of families of children with AS is important: helping parents to cope more adequately greatly assists the development of the child.

A rethink?

There are schools of thought that prefer to see people not labelled, a process which can be seen to imply deviance, but more valued as diverse. Autistic people themselves have advocated that society's attitude towards them should change. Supporters of this standpoint reject the belief that there is a society ideal of appropriate behaviour and skills and that any deviation from this must be pathological; rather, they advocate tolerance for what they refer to as neurodiversity.

Central to the autistic rights movement is a recognition that there is an alternative view to that of seeing autistic behaviour as deviant. In 2002 Baron-Cohen wrote of Asperger's people "In the social world there is no great benefit to a precise eye for detail, but in the world of maths, computing, cataloguing, music, linguistic, engineering and science, such an eye for detail can lead to success rather than failure". In a world where diversity is increasingly tolerated — or at least so legislators would have us believe — I believe we are moving towards a society in which people with Asperger's are more valued.

Contact

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