AUTISM : ASSESSMENT AND DIAGNOSIS

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Autism is a complex developmental disorder that affects the brain's normal development. The cause of autism is unknown and diagnosis relies upon matching the child's behaviour patterns and development with the diagnostic criteria. Autism usually emerges in early infancy, and the diagnosis of autism can be reliably made from two years of age.

In 1980, the American Psychiatric Association's Diagnostic and Statistical Manual (DSM-III) introduced the diagnostic term: Pervasive Developmental Disorder (PDD) to cover a group of disorders of development including autism which presented with abnormalities and impaired functioning across the social, cognitive, emotional and language domains. These impairments were present from the first few years of life. The DSM-IV (APA, 1994) includes five categories of pervasive developmental disorders (PDDs):

1. Autistic Disorder (Autism)

See Fact Sheet : What is Autism?

2. Asperger's Disorder

One year after Kanner's original paper on autism, Hans Asperger published a paper in 1944 that formed the basis of what was to become known as Asperger's disorder. Asperger's paper described a group of children and adolescents who had deficits in communication and social skills, had obsessional interests and behaviour, disliked change and had a dependence on rituals and routines. In addition many were physically clumsy. Unlike the children described by Kanner, the children in Asperger's paper generally had no significant delays in early cognitive or language development. The DSM-IV and the ICD-10 have attempted to introduce a consistent international approach to diagnosis and specify that the key differentiation is that persons with Asperger's disorder do not have delayed language development which is a characteristic of Autistic disorder. Persons with Asperger's disorder have overall normal intellectual ability. Approximately 20% of persons with Autistic disorder also have IQ in the normal range and are referred to as high functioning.

3. Rett's Disorder

This is a progressive developmental disorder that appears primarily in girls. It is usually associated with severe intellectual disability. Development in infancy is normal however head circumference growth decelerates after about 6 months. Fine motor skills acquired earlier are gradually lost between the ages of 6 months to 4 years and are replaced with an obsessive hand wringing movement. There is also a gradual loss of gross motor function as lower limbs and trunk are affected. Children also gradually lose language skills, social interest and an interest in their environment. It is this aspect of the progressive disorder that may initially appear to be like symptoms of autism. Over the course of the disorder, children may become more socially aware, make more effort to communicate and make more eye contact than a child with autism. In adolescence girls have muscle wasting, scoliosis (curvature of the spine), spasticity and loss of mobility. Prevalence rate is about 1 per 20,000 (Tidmarsh and Volkmar, 2003).

4. Childhood Disintegrative Disorder (also known as Heller's Syndrome)

This is a very rare disorder with a prevalence rate of about 1.7 per 100,000 affecting males more often than females (Tidmarsh and Volkmar, 2003). Development of language, social and play skills is normal for the first 2 - 4 years of life followed by regression without any associated medical cause. In most cases no specific neuropathological process is identified. To meet DSM-IV diagnostic criteria, a child must show regression in 2 of the following developmental areas: language, social, play or motor skills, adaptive behaviour, bowel or bladder control. The deterioration should occur before the age of 10 years.

5. Pervasive Developmental Disorder - Not Otherwise Specified (PDD-NOS)

This diagnosis is used when other diagnostic criteria are not met. For example children who do not fit diagnostic criteria because of age of onset or who do not have the key symptoms described for other PDD diagnoses. This category is somewhat open to interpretation by clinicians because of the lack of clear criteria. Despite this it is generally used to describe children such as those who may have global developmental delay and some symptoms of autism, or who fail to meet the strict criteria for autism. Children diagnosed with PDD-NOS must meet the criteria for severe and pervasive impairment in: reciprocal social interaction associated with impaired verbal or non verbal communication skills or with the presence of stereotyped behaviour, interests and activities (DSM-IV, APA, 1994).

What's in a name? Autism Spectrum Disorders

The term Autism Spectrum Disorders (ASD) is currently used but its definition lacks the level of international agreement attached to Pervasive Developmental Disorders.

Currently, ASD usually refers to a group of different conditions (Autism, Asperger's Syndrome and PDD-NOS), a similar concept to PDD.

However others use the term ASD to refer to a unitary concept of autism conveying a notion of severity from the aloof intellectually delayed child with "Kanner" type autism at the

severe end through to intelligent, less severely disturbed children with Asperger's Syndrome (AS) at the other end of the spectrum. Some clinicians describe children as "on the spectrum" which is confusing for parents and service providers. A comprehensive assessment such as that listed below is essential in order that a specific diagnosis can be made.

Assessment

Diagnosis requires a comprehensive, multi-disciplinary assessment comprising at least:

- developmental and family history
- observation of the child's behaviour and interaction with others
- a medical assessment including tests for known causes of developmental delay (e.g. chromosome analysis) and hearing tests
- a cognitive assessment using appropriate tests such as: Psychoeducational Profile-Revised (PEP-R) (Schopler et al, 1990), Wechsler Pre-school and Primary Scale of Intelligence-Revised (WPPSI-R) (Wechsler, 1989)
- structured language assessment
- structured assessment tools such as the Autism Diagnostic Instrument (ADI) and the Autism Diagnostic Observational Scales (ADOS) (Le Couteur et al, 1989; Lord et al, 1989), clinician completed rating scales e.g. the Childhood Autism Rating Scale (CARS) (Schopler et al, 1980), and parent or teacher completed checklists such as the Developmental Behaviour Checklist (DBC) (Einfeld & Tonge, 1992)
- comprehensive and sensitive feedback to the parents and carers about the diagnosis as the first step in developing a plan of intervention and services required.

Assessment Instruments

Over the past forty years various instruments have been developed specifically to assist in the diagnosis of autism and measurement of associated behaviours. Contemporary assessment instruments are usually administered in one of three ways: a checklist or rating scale completed by a trained clinician based on behavioural observation (e.g. Childhood Autism Rating Scale (Schopler et al, 1980), Autism Behaviour Checklist (Krug, Arick & Almond, 1980) ; a structured parent/carer interview administered by a trained clinician (e.g. the ADI/ADOS (Le Couteur et al, 1989; Lord et al, 1980); or a parent/carer completed questionnaire (e.g. the Developmental Behaviour Checklist (Einfeld & Tonge, 1992); the Autism Screening Questionnaire (Berument et al, 1999). No one instrument is able to undertake all the tasks of diagnosis and behavioural description. Therefore, clinicians must evaluate an instrument's ability to meet a specific purpose and choose the appropriate psychometrically sound instrument(s) from the range available.