Attention Deficit Hy

A practical Montessori response

by Wendy Fidler

Maria Montessori's early work in the Casa dei Bambini in Rome provided the seed-bed of knowledge from which she researched and designed the learning materials we now find in Montessori schools. It was there that she studied the behaviour of unruly, socially inept children, many of whom had learning difficulties.

We should not be surprised that children with behavioural and learning problems progress well as they adopt the routines, methods of working and social interactions (that is, as they become 'normalised') in Montessori schools.

What is ADHD?

Attention Deficit Hyperactivity Disorder (ADHD) is a developmental disability, which impacts upon children's ability to control their own actions and responses, to concentrate and disregard distractions, to integrate sensory perceptions and to participate acceptably during social interactions.

The identification, management and treatment of children with ADHD is complex and often emotive; it requires an integrated, long-term approach to the treatment of symptoms, by a range of clinical professionals, parents and teachers and a sympathetic and tolerant perception of a continually changing disorder.

It is impossible to 'snapshot' the changing behaviour of the ADHD child – the disorder is best described as a continuum, with each child's behaviour, self-esteem, attitude and attention subject to a roller coaster of environmental and neuropsychological distractions.

It can be very difficult for those living and working with an ADHD child. The child may one day behave well but behave in a difficult fashion the next day. Adults may have to change their perceptions towards the child from that towards a lazy, erratic, wilful child behaving poorly, to one towards a child struggling with a variety of 'coping' behaviours. These include acting the clown in emotionally adverse situations, and seeking to deal with a disability outside his or her complete control.

To complicate matters, there are a variety of differential diagnoses – conditions which mimic the clinical features of ADHD (Hill & Cameron, 1999). These include:

- hyperactivity which can be confused with the natural exuberance of young children, especially at nursery, pre-school and infant age
- sleep deprivation and chronic tiredness which can result in a loss of attention and concentration
- lack of self-control and settled self-occupation can result from inadequate, inconsistent or chaotic parenting (or the lack of a suitable 'attachment model').

Attention levels and activities of children with moderate or severe learning difficulties are often more appropriate to their developmental age rather than chronological age.

Fine motor skills development – concentrating on an exercise of practical life.

Associated learning difficulties

More than half of children diagnosed with ADHD also meet the diagnostic criteria for other developmental or psychiatric disorders, for example, in the areas of movement, perception and understanding, speech and language, academic learning and handwriting skills. It is important to identify these concurrent conditions as they also have an impact on children's functioning and performance in learning, social and daily life.

How is ADHD diagnosed?

Hyperactivity, inattention and impulsive behaviours do not

peractivity Disorder

Left: Individual attention builds good self-esteem and helps language development. Right Hand and eye control with pencil work.

necessarily imply that a child has ADHD. All the environmental factors contributing to children's development and behavioural patterns need to be assessed and this works best when the child is an active partner in the assessment process. (BPS, 1996)

Each child with ADHD has a different and unique set of problems. Multiple domains of functioning may be affected – cognitive, behavioural, emotional and so on. Assessment works best when an integrated approach is adopted by a range of professionals - occupational therapists, physiotherapists, educational psychologists, dieticians, and others.

Within his or her own specific cultural, social and physical settings, it is typical for an ADHD child to present different symptoms at different times. Clinicians observe the child in a variety of settings: home, nursery, pre-school and school. In a multicultural setting, measures of ADHD must be valid for children with different ethnic backgrounds; they should not unjustifiably discriminate against minority groups.

The child does not exist in its environment independently of distractions, and in a controlled Montessori environment, with a teacher who maintains a calm and structured atmosphere, who defines his or her expectations for children's behaviour and who provides plenty of positive reinforcement, children usually respond with better self-control, improved performance and appropriate behaviour.

Key interviews and parental involvement

Clinicians observe and evaluate the child's attention, impulsivity, activity and co-operation with the parent, carer or teacher present and when the child is alone with the clinician (Greenhill, 1998).

Only when the child, parents, carers, teachers and each clinician involved contributes to an integrated, long-term strategy will ADHD be continuously evaluated and best managed. This is because ADHD symptoms fluctuate significantly in response to different environmental factors. Repeated assessments are necessary to obtain a representative picture of a child's 'typical' behaviour and performance.

ADHD treatment interventions

Parental involvement

ADHD children require more frequent and immediate feedback about their behaviour – they are less likely to respond to promises, reasoning or 'rewards' than non-ADHD children. Parent-centred strategies strive for consistency and persistence (Corkum et al, 1999), with all carers responding in the same way even when the setting changes.

Most Montessori schools provide parent-teacher conferences, open events or other opportunities through which parents see for themselves how children develop self-control and calmness during their shared daily routines. This helps parents provide a consistent approach at home and in turn, gives them confidence in their ability to manage their children. As children succeed with new skills and begin to apply their learning in different contexts they develop confidence and greater self-esteem.

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Social skills training

ADHD children are frequently socially awkward. They are socially 'busy' and this puts them at risk from negative interpersonal experiences (Landau and Moore, 1991). A structured social skills training programme can improve the ADHD child's ability to interact sensitively and appropriately, promoting peer-relationships.

Mixed age groups, lack of competition and shared learning in Montessori schools promote successful peer contacts in a natural environment and alter the child's social status within the peer group by increasing knowledge about appropriate behaviour and adaptive skills.

Behaviour management

Positive reinforcement and behaviour management strategies include attention training, impulse control training and therapies for 'executive' or manipulative dysfunctions. Education and training about the changing nature of ADHD promotes understanding of why children behave as they do, and equips teachers and parents with the necessary management skills.

The concept of 'discipline' is different in Montessori schools; children master an awareness of themselves; consequently they control themselves when they must follow what Montessori described as 'a rule of life' (a known routine). They become accustomed to a discipline that is not confined to nursery or school, but which extends out into society.

Medication

Appropriate medication is sometimes prescribed to change the brain mechanism responsible for behavioural inhibition. The effect and side-effects of medication are frequently monitored. Medication treatment is purely a form of symptomatic relief.

Practical Montessori interventions (or therapies) complement medical treatment. Making time and space available for a child to concentrate on his or her own choice of practical life activities encourages concentration, independence, self-control and a better feeling of self-worth.

'Multi-modal' treatment

There is no 'cure-all' for ADHD as each child has a unique set of responses to neuropsychological and environmental triggers. ADHD requires long-term symptomatic treatment using a combination of sensory and developmental approaches to enhance a child's acquisition of daily living and learning skills. Multi-modal treatment, combining interventions from all interested professionals, results in an integrated package of care for the child and family.

Sensory integrative approaches reduce the impact of sensory, perceptual and motor skills delays; the Montessori sensorial materials help children in all these areas. Developmental approaches, using the Montessori practical life materials, enhance children's acquisition of learning and daily life skills, such as handwriting and dressing skills. Children also learn adaptive strategies, for example in language work where the traditional Montessori colour-coding helps them to categorise information.

Education management

The provision of advice for teachers of an ADHD child, that is, on classroom organisation, curriculum modification and performance-promoting strategies, can promote the educational offering for the whole class. Teachers must plan ahead, anticipate problems, consider their responses, share the plan with the child and then use it should a problem arise. In this way the child begins to take ownership and responsibility for his or her actions.

Continuing Professional Development (CPD) for Montessori teachers includes keeping abreast of new knowledge about Special Educational Needs. Montessori teachers' child-management skills and the organisation of a prepared Montessori learning environment provide a stable background for the ADHD children and their peers. Mixed age groups discourage competition. Known routines and customs, for example cleaning up of spills, help ADHD children to respond in a socially appropriate fashion.

Towards a sensory, integrated approach to ADHD

No single treatment has been proven to cure the condition of ADHD or to produce any enduring effects in children after treatment has been withdrawn (Barkley 1998). No existing therapy permanently corrects the underlying neurological deficiencies that give rise to ADHD; children are sometimes prone to relapses and at other times their symptoms may not be as readily managed as they have been previously.

In my experience practical Montessori interventions have helped children to adopt more acceptable behaviours, which arise from 'coping' strategies, and to lose the difficult habits. Very often children with ADHD make good progress within a prepared Montessori learning environment. These include becoming normalised into the routines, social graces and behaviours of everyday Montessori life.

Research results indicate that an integrated, sensory approach to the evaluation, diagnosis and management of ADHD might fall into four categories:

Understanding and awareness of the ADHD child's underlying sensory processing dysfunction, and its effect on the child's behaviour, development and attention, will help parents, teachers and clinicians to provide an integrated, consistent approach to helping the child to manage his or her own behaviour;

Preparing the living and learning environment of children with ADHD in order to promote adaptive behaviours provides a more predictable structure and order around which children can better organise their own time, choices and plans.

Each child with ADHD has a different and unique set of problems. Multiple domains of functioning may be affected – cognitive, behavioural, emotional and so on. Assessment works best when an integrated approach is adopted by a range of professionals – occupational therapists, physiotherapists, educational psychologists, dieticians, and others.

Integrating a predictable, planned activity programme into each ADHD child's natural environment in order to best meet his or her specific, individual needs, and including, for example, sensory diets (Wilbarger, 1995), sensory calming techniques or alerting strategies to help children take control of and regulate their own arousal and attention control. (Connors, 2000)

Implementing practical, hands-on activities, which identify, isolate, involve and integrate children's individual sensory perceptions. ■

Wendy Fidler is a Montessori and Special Educational Needs Consultant, Principal Directress of Wildwood Montessori School, Bury, Lancashire and HMI Additional Inspector. She was the winner of the inaugural Montessori Special Award at the EYE Early Years Awards in September 2002.

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TABLE OF ASSOCIATED DEVELOPMENTAL PROBLEMS IN CHILDREN WITH ADHD

Some children with ADHD may also have other developmental problems; we call these 'associated' features – they are not diagnostic of ADHD, nor do they rule out a diagnosis of ADHD if they are absent. (Barkley, 1998b; Whitmont and Clark, 1996 & Piek et al, 1999)

Adaptive Development

Difficulty with self-help skills;

Lack of organisation, personal responsibility and independence in daily activities.

Language Development

Language delay (about one third of children studied);

Speech impairments (up to 50 per cent of children studied);

Poor organisation and inefficient expression of ideas;

Poor verbal problem solving.

Perceptual and Cognitive Development

Poor sense of time;

Impaired planning ability;

Impaired non-verbal and verbal working memory;

Mild deficits in intelligence;

Deficient academic achievements in reading, spelling, handwriting and mathematics (about one third of children studied).

Motor Skills Development

Delayed motor co-ordination (more than 50 per cent of children studied);

Sluggishness and difficulty with large muscle movements;

Poor fine motor skills, for example, hand and eye co-ordination;

Poor 'kinaesthetic acuity' (for example, efficient reactive movements, say, when playing ball games)