



Differential assessment

*Neglect? Abuse? ADHD? Autism? **Miriam Silver** revisits the twin areas of organic deficit and damaging experiences, and encourages us to differentiate via assessment the impacts of maltreatment from those of neurodevelopmental disorders*

Clinicians have long noted the similarities in presentation between children who have experienced maltreatment and limited opportunities for attachment, and those with neurodevelopmental disorders like ADHD and autism. The nature of the brain, which remains highly plastic for much of early childhood, means that it is often difficult to distinguish the source of any impairment. Thus differential diagnosis takes knowledge of both conditions and a careful unpicking of the superficially similar presenting behaviours.

It is particularly hard to differentiate organic disorders from those that are acquired, as both can run through the generations and across multiple members of the same family. It might be that traits you thought were passed down because of it 'being in the genes' or because of some kind of organic disorder the child was born with could in fact be the product of their parenting experience. The study of epigenetics is beginning to shed light on these differentiations. In the meantime, neuroscientists are exploring the biochemical and structural similarities and differences in the brains of children who have developmental disorders and those who have experienced neglect and abuse, and clinicians are developing more effective assessment and intervention techniques. I hope, in this article, to give a whistle-stop tour of some of the issues and differentiating features that would be relevant to clinicians working with children and young people's mental health. More detail can be gained from my book¹.

Attachment relationships are powerful

We need to start back with the baby's attachment and where it leads in the context of this discussion. The type of attachment relationship formed between a parent and their infant has a powerful influence on the potential health, social and economic opportunities of that child throughout their lifetime. This is particularly remarkable given that the template for a child's attachment relationship style is largely determined before the age of two. Attachment style has an impact on a huge variety of psychosocial outcomes, including academic achievements, marital satisfaction, likelihood of criminal involvement, mental health and quality of relationship with their own children², as well as physical health outcomes including childhood infections, asthma, cancer and diabetes. (The poor health outcomes appear to relate partially to the ability to self-monitor, recognise symptoms and seek help promptly, as well as to the incidence of various conditions.) Maltreatment and early-life stress confers risk for later psychopathology such as anxiety, depression, post-traumatic stress, substance use and psychosis³, with huge incidence of childhood abuse and neglect, coupled with the absence of a secure attachment figure, amongst inpatient populations and those with severe and enduring mental health problems.

There is complex interplay between a baby's experiences and their neurological development, with optimal development being more likely where a parent is physically and psychologically available, attuned to the infant's needs and able to hold that child in mind. It is sensitive interaction with the caregiver that teaches a child to regulate their physiological arousal level, to recognise their emotions and to 'mentalise' or understand the nature of minds⁴. The caregiver relationship helps the child to develop these complex reflective skills in the prefrontal areas of the brain. (Interestingly, research shows that these areas of the brain are the last to develop and are not fully formed until we are in our 20s.) The child also learns their social skills from those they see demonstrated around them, and their cognitive and language development can be helped or hindered by the stimulation and interactions they experience.

Exposure to chronic trauma during development leads a child to have a heightened readiness for fight or flight and to emotionally dysregulate more easily. Babies learn to freeze under threat, and certain types of abuse teach children to dissociate in order to take their mind away from bodily sensations they cannot avoid. In all of these situations, the neurochemical messengers of cortisol and adrenalin are released and have a profound effect on the body and brain, changing the pattern of blood supply in the body and the areas of the brain that are more active⁵.

These changes in blood flow and brain activity show in the child's behaviour as difficulties with concentrating, higher levels of motor activity, being a bit more impulsive, being a bit more active, having less ability to see the consequences of their actions, difficulty reading social cues and an increased tendency towards aggression. This can lead to problems in the family and/or school and lead to referrals to educational support services and CAMHS.

Significantly, without an awareness of the history of maltreatment, these issues are often attributed by parents, schools and referrers to the child's innate make-up, and can be interpreted as the symptoms of ADHD. In my experience, traumatised children can easily end up 'ticking the same boxes' on diagnostic checklists, which is one of the reasons why it is so important to take a thorough developmental history. Although trauma-based hyperarousal might look very superficially similar, biochemically it is hypothesised to be from a very different cause (though no single aetiology or biological marker for ADHD has been identified).

In terms of observations, one key differentiator is how the child relates to adults

Social communication

Autism Spectrum Conditions (ASCs) are another organic neurodevelopmental difference that might be considered to overlap with the presenting features of exposure to trauma and poor experiences of attachment. The familiar triad of difficulties with social understanding, flexibility of thinking, and the social aspects of communication can also seem to be shown in people who have experienced maltreatment and lacked a secure attachment relationship. These latter clients may also benefit from a lot of order and structure and respond differently to sensory information such as pain. They may also present with learning difficulties and difficulties with life skills. As with ASC, the extent of apparent difficulties may also vary over the lifespan. (Some people with ASC can appear to be profoundly autistic in their early childhood, but the presentation can become more and more subtle as they develop and learn compensatory skills, such that they can function very well as an adult. Others can appear more able, but regress or show more unusual behaviour when under stress, or where there is significant change or uncertainty – eg when changing school, or when on holiday.)

People with ASC seem to see the world in a more logical and mechanised way, and struggle to understand the nature of people who have thoughts and feelings that are not visible, and might act in ways that are not always rational and predictable. There has been a lot of research exploring the nature of this difference (which appears to be at least partly a genetic trait) and trying to localise differences in the brain, but the exact mechanism is still a mystery. However, it is clear that people with autism have a less intuitive sense of how other people think and feel. We call this ‘theory of mind’: having a working model of the nature of subjective experience.

It seems, from research, that to gain an effective theory of mind you need both the biological capacity inbuilt in the brain (which it is hypothesised people with ASC lack) and the early experiences of being held in mind by another, normally your parent or carer, which allows you to learn to recognise and name your emotions, to learn to regulate them, to experience empathy, and to learn to use the frontal parts of your brain to be aware of your own thoughts and feelings and those of others (experiences that may be absent for people with early abuse and neglect).

For example, there are many academic papers published about the ‘quasi-autistic’ presentations of children removed from the highly deprived orphanages of eastern Europe⁶. As these very extreme examples of deprivation show, it seems that severe neglect or chronic poor care can lead children to present in a very similar way to autism, although, given good care, the recovery these children make differentiates them from children with ASC.

Differentiating aetiology

The most obvious differentiating factor between ASC and attachment difficulties and the impact of maltreatment is whether the child has experienced severe enough neglect and abuse during the critical early stages of infancy to be in keeping with their presentation. A child will not acquire social communication difficulties from the normal range of ‘good enough’ parenting or from occasional lapses. To have an impact on the brain, abuse or neglect needs to be both early, severe and sustained.

In terms of observations, one key differentiator is how the child relates to adults. Children with ASC tend to relate to them just like any other object in their environment and not pay them too much attention, whilst many children who have experienced abuse and poor early care are very vigilant towards adults, even if they don’t respond to them in the same ways as children who have experienced good-enough care. Children with ASC also tend to be blithely oblivious to teasing or social rejection from their peers, whilst those who have experienced abuse or neglect are very sensitive to signs of rejection and may even interpret neutral cues negatively (eg seeing a concentrating facial expression as one that is cross with them). Heather Moran’s article on the Coventry Grid⁷ details more of the particular differences that help to make a differential diagnosis between ASC and attachment disorders.

A mixture of both?

It is also worth acknowledging that a lot of children who are in the looked after system might also have organic difficulties as well as having experienced social adversity. Looked after and adopted children have higher proportions of developmental disorders, learning disability and mental health conditions than the general population. The reason for this is twofold. Firstly, parents with these kinds of traits are more likely to have difficulties with providing good-enough care for their child and therefore more at risk of having the child removed into care. Secondly, children with these kinds of traits are more challenging to parent effectively and are more likely to show more profound impairments more obviously when given deficient care. Such combinations are often bigger than the sum of their parts, in the sense that the combination of a disorder like an Autistic Spectrum Disorder or ADHD or learning disability with adverse experiences like having been abused or neglected can create incredibly challenging presentations; much more so than one of these conditions alone.

In my experience, professionals tend to be more alert to one potential aetiology or the other according to their role and orientation. There is a tendency either to assume that if you see certain symptoms, that is diagnostic of a biological condition, or that if a child has been through abuse or neglect, that becomes an

explanatory factor for everything they are presenting, rather than considering that either option – or an interplay between them – may be the best explanation.

Interventions

First and foremost, the most useful intervention is often psychoeducational work to help caregivers understand the challenges that the child is experiencing. With autism or ADHD, we are used to giving quite biological explanations of inherent differences in the brain, but with the impact of maltreatment, the explanation needs to focus more on what has been learnt from experience. The explanation may need to cover both, and also the interplay between organic deficits and damaging experiences.

For example, when your life experiences teach you that life is perpetually threatening, you learn to stay in a heightened state of physiological arousal (readiness for fight or flight) and your emotional state becomes dysregulated. The only way to feel calmer is to be in control, and there can often be a powerful desire to control the environment and others that the child interacts with. When dysregulated, a child cannot access their more sophisticated thinking strategies, as the survival part of the brain is dominant, so the priority is to calm them rather than reason with them. Once the child is soothed (and the frontal area of the brain is back online), you can start to explain things to them, or appeal to reason and past learning.

It is important for parents, caregivers and therapists to realise that it takes traumatised children real effort, energy and dedication to learn new behaviour patterns, and under stress they will behave in old familiar ways, no matter how inappropriate they are or what the consequences will be. The more stress there is, the more cortisol is released and the less the child is able to reason and access learnt behaviours. However, when a child is in a calm, soothed state, they can begin to use and develop more sophisticated thinking.

Many interventions for children who have experienced maltreatment focus on building up healthier attachment relationships. I would see this as the primary strategy, and one that is necessary before other interventions that are more focused on behaviour and life skills are likely to be effective. (I draw parallels with putting the plug in before you run the bath – that a safe and supportive placement is necessary before therapy can be effective.) I would also urge caution about engaging in individual therapeutic work with children who have experienced maltreatment and multiple changes of placement, as their ability to trust and form relationships is often damaged and the process of forming trust and preparing for the ending of a relationship often needs to be protracted, whilst the time available for therapeutic interventions is often relatively short. I would therefore see it as much more productive to support the long-term attachment relationships in their life than to offer a new brief relationship in which to do work. We need to acknowledge that a caregiver spends hugely more time with a child than a therapist ever can, and that influencing this relationship to be more therapeutic can often be more effective than direct work.

Once the child is settled in placement and the attachment relationship is functioning well, it may be that specific interventions relating to attention, social skills, empathy or behaviour are indicated. The good news in this regard is that, as a general rule of thumb, the interventions that are helpful for children on the autistic spectrum or with ADHD are helpful and not harmful for children who have attachment difficulty and whose symptoms are there because of exposure to trauma or neglect, and vice versa. For example, routine can be helpful and soothing to highly aroused children who have been used to living with chaos and unpredictability in their early lives, as well as to children with ASC who struggle to cope with change, due to not always seeing the bigger picture amongst the noise of details.

Dr Miriam Silver is a consultant clinical psychologist with extensive experience in CAMHS and working as an expert witness for the family court. She has a particular interest in children’s development, attachment relationships and helping professionals to make the best decisions about how to intervene to support families. She is passionate about helping translate advances in research knowledge into practical strategies to help children living outside their family of origin. She has recently published her first book, *Attachment in Common Sense and Doodles* (Jessica Kingsley, 2013).

References

1 Silver M. Attachment in common sense and doodles. Jessica Kingsley; 2013.
2 Sainsbury Centre for Mental Health. The chance of a lifetime: preventing early conduct problems and reducing crime. 2009. www.scmh.org.uk/pdfs/chance_of_a_lifetime.pdf and www.wsipp.wa.gov/rptfiles/04-07-3901.pdf
3 Mueller S, Maheu F, Dozier M et al. Early-life stress is associated with impairment in cognitive control in adolescence: an fMRI study. *Neuropsychologia*. 2010; 48:3037-3044.

4 Meins E, Fernyhough C, Russell J et al. Security of attachment as a predictor of symbolic and mentalising abilities: a longitudinal study. *Social Development*. 1998; 7(1):1-24.
5 Bruce J, Fisher PA, Pears KC et al. Morning cortisol levels in preschool-aged foster children: differential effects of maltreatment type. *Developmental Psychobiology*. 2009; 51(1):14-23.

6 Rutter M, Kreppner J, Croft C et al. Early adolescent outcomes of institutionally deprived and non-deprived adoptees. III. Quasi-autism. *Journal of Child Psychology and Psychiatry*. 2007; 48:1200-1207.
7 Moran H. Clinical observations of the differences between children on the autism spectrum and those with attachment problems: the Coventry Grid. *Good Autism Practice*. 2010; 11(2):44-57.