insights

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evidence summaries to support
social services in Scotland

August 2014

trauma sensitive practice with children in care

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Key points

- Children in care are likely to have experienced trauma but not all children who have adverse experiences will be traumatised. Every child is unique and their responses to the same adversity will differ.
- Trauma can affect brain development. Many traumatised children function at an earlier developmental level than their chronological age suggests.
- Traumatised children may struggle to develop regulatory skills needed for learning and social relationships.
- Some children react powerfully to sensory triggers related to their trauma by becoming hyperaroused or dissociating. These reactions often occur below the level of conscious awareness.
- If adults involved with traumatised children are unable to manage their own emotions, this can escalate children's distress.
- Effective help requires intervention that is congruent with neuroscience, developmentally relevant and relational.
- The key adults in helping children recover from trauma are their carers and teachers. They require relevant support and training to be most helpful to traumatised children.
- Crisis-oriented care organisations may exacerbate trauma and undermine the efforts of committed practitioners.
- Post-traumatic growth and resilience is possible. Traumatised children need hope and adults involved with them must believe in a positive future for them.

Introduction

This *Insight* is intended to summarise the evidence in this challenging area of work and to support practitioners to reflect on their practice in this context. An enhanced understanding of trauma can enable practitioners and managers, from all the agencies working with children in care, to improve their practice with severely distressed children and to reduce the negative impact of trauma not only on children but also on the adults caring for them.

Loss is a universal human experience which we all encounter and, although it may be painful, successful resolution of loss is part of normal development. Trauma, however, results from events outside normal human experience which overwhelm usual coping mechanisms. It is associated with terror and helplessness and often involves a feeling that the individual or someone important to them is at serious risk.

Many children in care experience severe neglect in their earliest years. Neglect occurs when physical, emotional or cognitive experiences required for normal development are either inadequate or absent. The impact is severe whether neglect is deliberate or the consequence of problems caregivers face in managing their own and their children's lives. The terror and helplessness experienced by neglected infants have led many theorists to describe early neglect as 'developmental trauma' (D'Andrea et al, 2012). As babies' developing brains are organising, lack of appropriate stimulation and soothing can affect successful development of areas of the brain associated with cognitive, social and emotional skills. Children struggle to manage later traumatic events if they cannot regulate emotions or acquire reflective skills to make sense of what has happened to them.

Single terrifying events or experiences can have a lasting impact on individuals and some experience symptoms of post-traumatic stress disorder such as nightmares, flashbacks or avoiding situations reminiscent of the trauma. Disabling though these symptoms are, the impact of complex trauma is more pervasive and harmful. Complex trauma occurs when terrifying experiences, caused by someone who should be a figure of trust, are the norm in children's lives (D'Andrea et al, 2012). Children adapt to this hostile environment and their baseline reactivity changes. Children can become over-sensitised to threat and may respond negatively to neutral and even positive cues.

These early experiences can have cascading and damaging effects throughout childhood and adolescence and well into adulthood. The impact of early neglect and trauma can cross every area of children's lives, negatively affecting their capacity to learn basic self-regulatory skills, develop a moral sense, manage a formal educational environment and make close, trusting relationships.

All children have different genetic heritages and a unique set of life experiences which result in varying responses to adversity. Trauma results from the way children experience adverse events not the events themselves. Some children suffer multiple adverse events without being traumatised, whereas others are overwhelmed by apparently less serious experiences. Some recover spontaneously from trauma but others suffer serious long-term effects that interfere with daily life. Many children have experienced severe trauma before admission to care but some are also exposed to additional trauma during their care journey. This may be due to continued failure to protect them from traumatic experiences within their family or community but it may also be as a direct result of individual or systemic abuse while in care. Despite the potential damage caused by early destructive experiences, every reduction in risk limits the long-term impact of trauma on children. No child is beyond help if support is provided to prevent a particular adverse experience or to ameliorate its effects (Appleyard et al, 2005).

Policy context

The Scottish Government has an ambition for Scotland to be the best place in the world to grow up. However, within Scotland, as with other countries, social factors exist that contribute to trauma experienced by children such as poverty, domestic violence and substance misuse. A number of policy initiatives are in place to improve children's experiences especially for those who are vulnerable. Getting it Right for Every Child (GIRFEC) is an approach which aims to provide a consistent way for people to work with children and young people. It is the overarching policy for all children's services and is intended to promote, support and safeguard the wellbeing of children and young people. GIRFEC is being threaded through policy, practice, strategy and legislation affecting children, young people and their families. Scotland is also implementing the world's first national multi-agency improvement programme for young children, the Early Years Collaborative. This aims to translate high-level GIRFEC principles into practical actions supporting young children and their families. There has also been a sustained focus on improving the experience of children in care through both the *We Can and Must Do Better* suite of reports and guidance and also through the efforts of *the Looked After Children Strategic Implementation Group*. Together these have raised the profile of children in care within education and health services and have pushed local authorities to ensure that their

children's experience and outcomes are prioritised throughout their services. The Children and Young People Act (Scotland) 2014 has also extended the rights of young people to continuing care and after care beyond the age of 16.

However, despite this, children in care and care leavers remain vulnerable. No policy or legislative change can prevent every child from being exposed to trauma. This makes it even more imperative that those working with children and young people understand the implications of trauma on development and functioning. Many professionals, however, have little specific training or support to recognise the difficulties children may face or may present to others as a result or their traumatic experiences.

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Effects of trauma

Trauma can adversely affect all areas of life and not only prevent the early development of key emotional and cognitive skills but also undermine existing abilities in older children and adolescents. Complex trauma can lead to children displaying behaviour or attitudes that meet diagnostic criteria for several different psychiatric disorders. Minnis (2013) introduced the term MAPP (Maltreatment Associated Psychiatric Problems), to describe this complex overlap in psychiatric diagnoses. Unless these behaviours are recognised as adaptive responses to extreme adversity, children may be labelled with one or more inaccurate psychiatric diagnoses. Such diagnoses may lead to inappropriate drug or behavioural interventions rather than an effective relational response to help children recover.

Many children recover spontaneously from trauma but even children in positive circumstances who have experienced only a single traumatic event risk continuing emotional difficulties. Long-term damage is most likely if trauma involves a repeated event (such as abuse or witnessing domestic violence) and includes betrayal by a significant adult. Moreover, if the child or a loved one is injured, or if the child believes there to be serious risk of injury or death, the impact is exacerbated. Where caregivers are traumatised by an event, or have a history of previous trauma or impaired attachments,

they may be emotionally unable to help children recover. Supportive, attuned caregivers, however, can protect children from some of the destructive consequences of trauma. Children in care are likely to have experienced the most chronic and damaging forms of trauma, and are unlikely to have the internal regulatory skills to recover or the buffering support of attuned and emotionally competent adults to protect them from adverse consequences. Even in a safe setting where an overactive alarm response is no longer adaptive, traumatised children may continue reacting in an extreme way to neutral and even apparently positive cues (Streeck-Fischer, 2000).

Self-regulation

Controlling impulses and managing difficult emotions are essential for successful adult life. Most children acquire these skills at a rudimentary level before they start school. Children who have experienced developmental trauma, however, may not have been helped to develop these skills. Infants learn to manage stress through relationships with attachment figures. When caregivers are either predominantly unresponsive or aggressive, infants may experience unmanageable negative feelings. Pre-school children are socialised and learn to curb impulses through the momentary rupture in relationship with their caregiver as they are prevented from or reprimanded for doing something wrong. This brief disconnection is followed by a quick repair of the relationship by the adult. This cycle of rupture and repair is common as young children try to explore their world and assert control over it. Through these experiences, and by having positive adult role models, children learn that making mistakes is not catastrophic and relationships can survive difficult interactions and be repaired. They learn that being loved and cared for is not dependent on behaviour. When children experience arbitrary or excessive discipline or dangerous unresponsiveness from their caretaker, with no repair of the relationship, they can be left in a state of shame with little capacity to manage their own behaviour. Their sense of self can become constructed around a fundamental belief that they are bad.

Even when children have good enough early experiences and develop self-regulation skills these can be overwhelmed by trauma. Terrified, highly aroused children cannot consciously control their reactions and respond to perceived threat in an impulsive and dysregulated way. If children are exposed to frequent terrifying experiences and their adult caregivers create their terror or fail to protect them against it, their baseline physiological arousal may be persistently high. Children become hyper-vigilant and alert to possible danger even when there is no real external threat. This preoccupation with survival diverts children from potentially positive social and learning opportunities and makes them extremely reactive to common stimuli that they associate with previous danger.

Traumatised children may also fail to regulate some of their physical responses. Children may not recognise extremes of temperature or be either exquisitely sensitive to the mildest discomfort or apparently unaware of pain even when they have suffered a serious injury.

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Emotional development

Children are helped to understand their own and other's emotions by their caregivers. Sensitive, attuned caregivers recognise and name emotions in infants from birth. While comforting a distressed baby, adults talk about emotions, attributing feelings such as fear or loneliness to the child long before they could recognise or name them. Such behaviour has been described as 'mind-mindedness' and links to children's development of theory of mind (Meins et al, 2002). This helps us understand that other people are separate from us and think and feel differently from us. Without this, children cannot understand their own and other people's feelings. Empathic concern requires both the capacity to recognise the distress of others and the ability to regulate our own emotional reaction to it (Thomas, 2012). The biological basis of empathy involves the triggering of mirror neurons in the brain when we witness facial expressions and body language in others, which in turn evoke autonomic responses in us similar to those experienced by the people we are observing. For traumatised children this biological response can engender considerable personal distress. Their already elevated baseline arousal, combined with a reduced capacity to regulate their emotions, can mean that instead of responding with concern to other people's suffering they may react to it as a direct threat. Even when children have successfully developed an understanding of their own and others' emotional state and are capable of empathic responses, later trauma and their subsequent need to concentrate on survival can reduce their emotional awareness and capacity for empathy.

Social relationships

Developmental trauma can leave a child without a template for positive social interactions. Human contact, rather than being reassuring, may be a source of stress and anxiety. Children who experience trauma later in their childhood may have their trust in human beings shattered and they may be wary and distrustful of others. If trauma involved the disruption and betrayal of the relationship by a caregiver, children may mistrust positive overtures from adults, suspecting a malevolent intent below the apparent concern and care (Cairns, 2002). Children may also experience difficulties

in relationships with their peers. Some fail to understand normal rules of play and interaction or overreact to the inevitable frustrations and difficulties in making and maintaining friendships. Many misinterpret the intentions or feelings of others as hostile which can lead to them being ignored or excluded by their peers (Streeck-Fischer, 2000). Sometimes children misread situations so badly that they feel totally threatened and respond very aggressively to little or no provocation. Traumatised children may find group experiences particularly stressful as they are often highly stimulating and can quickly overwhelm children's fragile coping mechanisms.

Sense of self

Children develop their sense of self in relationship with their caregiver. Most children see themselves reflected in their caregiver's gaze as loveable and full of potential competence. The delight parents show when interacting with their babies provides the foundation for a strong and positive sense of self. When instead children experience chaotic and hostile environments and unresponsive or aggressive caregivers, development of a secure sense of self is compromised. Some children with positive early experiences who later suffer trauma have their positive sense of themselves and others damaged. Instead of believing that the world and other people are predominantly positive and that they themselves are good, their core constructs become moulded by the traumatic experience and children come to believe that they are worthless and the world hostile and dangerous (Cairns, 2002). Although this trauma-induced set of constructs is painful and destructive, it enables children to make reliable, though negative, predictions about the world and their place in it. Paradoxically any challenge to this set of beliefs may evoke fierce resistance and children often seem compelled to re-enact their trauma in new relationships and settings.

Trauma and language

Kolk (1994) described trauma as 'speechless terror' and traumatised children may be slow to develop speech or may struggle to find words to describe their trauma or their feelings. Trauma may also affect the capacity to process verbal information. Traumatised children can struggle to follow complex directions and may experience auditory selectivity so that only part of a verbal communication is heard. Adults often interpret failure to obey directions or to respond to questions as wilful defiance and react punitively, rather than modifying their own communication to match the children's needs.

Trauma and learning

Children spend many of their waking hours in school. It is the place where they acquire academic knowledge and develop skills for the future. It is also where they develop friendships and learn to manage a complex social environment. For some children, however, the impact of trauma means that school becomes a difficult experience which, rather than providing positive opportunities, leaves them feeling anxious and excluded.

To learn effectively we need to be alert but calm. Traumatised children, however, can be in a constantly vigilant state ready to respond to danger. Instead of being ready to learn, they will be concentrating on survival. Even small schools have many adults and children in a restricted space, who may be perceived as potentially dangerous. When children's baseline reactivity is high they may struggle to sit quietly and attentively and may attempt to regulate their stress by acts such as moving around the classroom, swinging on chairs or fiddling with possessions that evoke a disciplinary response from teachers. An alternative response is to cut off in a dissociative way which may avoid sanctions until their lack of attention becomes clear. Outside the classroom or in the playground children may interpret incidental or friendly contact as attacking and react aggressively. These responses are likely to alienate children from their peers and they can become seen as troublesome by teachers (Streeck-Fischer, 2000).

Most school learning requires the ability to understand sequencing and cause and effect. Telling stories, solving mathematical problems, understanding history or doing a science experiment all require this capacity. For many traumatised children, however, their earliest experiences laid down an expectation of chaos not predictability. Instead of the usual comfortable routine of sleeping, feeding, cleaning and play, many of them had a fragmentary and unpredictable experience of care. They may have no sense of cause and effect as their attempts to interact with the world resulted in random and unpredictable responses from their caregivers. Complex trauma can undermine the acquisition of executive functioning skills which allow people to integrate emotional and cognitive signals from the right and left brain so that they can set goals, plan, organise, persist in tasks and be flexible. Without these skills even highly intelligent children struggle to meet the demands of school learning.

Traumatised children may have serious problems with their sense of self and can see themselves as bad people. Formal learning involves the possibility of mistakes and failure. Many traumatised children are sensitive to shame-inducing experiences and react negatively to avoid them. Some disengage by truanting or refusing to undertake tasks, others 'act the clown' to avoid taking work seriously and many

react to shame-inducing experiences with violence. Teachers can easily fail to recognise that such negative behaviour may be fuelled by anxiety rather than wilful disobedience.

The neuroscience of trauma

A basic understanding of neuroscience can help adults recognise the roots of children's difficulties and identify effective ways to help. Although the impact of trauma may be apparent in any area of children's lives, effective treatment must provide experiences that change the way children's brains function. Caring for traumatised children can expose adults to extremely challenging behaviour and responses. Recognising that this is often driven by primitive brain responses to terror beyond the child's conscious control helps adults survive the challenge and remain positively connected to the child and soothe their pain.

Early developmental experiences

Children's experience in the womb affects early brain development. Excessive maternal alcohol consumption can lead to foetal alcohol syndrome and some children are born addicted to drugs used by their mother during pregnancy. Maternal stress during pregnancy can also have long-term effects on children's mental health (Talge et al, 2007). Some children in care will have experienced these stressors in the womb and at birth may already have suffered neurological damage.

In the first years of life the brain is growing and organising itself. Growth results from connections made between nerve cells as the brain makes associations between different experiences. This underpins learning and when the same associations are repeatedly made, strong neural pathways develop that influence our understanding of ourselves and the world we live in. Networks of brain cells extending throughout the brain ensure that an incoming sensory signal is transmitted almost instantaneously to all areas of the brain. The human brain is extremely sensitive to both the internal environment of the body and the external environment.

Most babies experience a reliable and repetitive cycle of discomfort such as hunger or tiredness which is usually recognised and responded to so that their distress is relieved. They also learn the patterns and rhythms of human communication through interactions with attuned and loving caregivers which ultimately underpin social and emotional development. They quickly learn not only

that their caregivers are safe and will meet their needs but also that human interaction is rewarding and enjoyable. They can tolerate some stress without becoming overwhelmed and explore their environment while a trusted adult is nearby.

In contrast, less fortunate babies are exposed to stressful experiences but instead of providing reliable relief, their caregivers have either ignored them or responded in an angry or aggressive way to their distress. Both neglect and aggression leave the infant unsupported to deal with an escalating level of stress. In extreme cases human contact becomes associated with fear and pain. This can prevent children's learning to understand and regulate their own emotions and distorts their relationships with others. Effectively their brains become organised to survive a hostile environment.

Full-term babies are usually capable of regulating basic physiological functions such as breathing, heart beat and blood pressure. These functions are managed by the brain stem which is the most developed brain structure at birth. Other areas such as the cortex and limbic system, which govern more complex motor, cognitive and emotional functions are relatively primitive at birth and develop in response to use. If infants experience neglect then fewer connections are made between neurons, and higher structures of the brain remain under-developed. This can adversely affect children's ability to consciously regulate emotion and behaviour.

The right hemisphere of the brain which is the seat of emotional regulation undergoes a growth spurt in the first two years of life. Neglect or abuse during this period can result in an impaired capacity in the right hemisphere limbic system to process emotion and this can affect the ability to adapt to change and to organise learning. Moreover, childhood abuse can weaken the crucial connections between left and right hemispheres of the brain which are essential for integrating information (Schore, 2001). Many abused children have an imbalance in development of the two hemispheres of the brain. In normally developing right-handed children the left hemisphere is more developed than the right but scans of abused children's brains display the opposite pattern.

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How the brain responds to perceived danger

Intensely frightening and dangerous situations place our survival at risk. In analysing risk the brain processes sensory signals in two different ways. Sensory information is sent to the cortex, where it is processed and a response initiated. This pathway takes too long, however, if a threat is imminent. A second, less sophisticated, processing also occurs lower down the brain. Incoming signals are scanned for danger and an alarm reaction initiated in the body if threat is detected. Although we sometimes respond to non-threatening cues (such as a sudden loud noise), this rapid reaction enables us to respond effectively to real dangers. If a false alarm is triggered, the cortex recognises this and the body quickly calms down. Very young children cannot identify whether a threat is serious and depend on adults to regulate stress evoked by perceived threats. Caregivers who are attuned to their child and able to self-regulate will buffer the impact of real or imagined danger on their child. Children with impaired attachments may have no-one to help them manage stress which makes them more vulnerable to future adversity.

Cortisol is a hormone secreted in response to stress which, along with adrenaline, activates this rapid reaction. Unlike adrenaline, cortisol is secreted on a daily pattern which is high in the morning but reduces over the course of the day. Cortisol regulates several functions such as the immune system, inflammatory reactions and the level of glucose in the blood. Increased secretion ensures a supply of glucose in the blood to fuel sudden urgent action and also temporarily switches off the immune system to prioritise energy for immediate survival. While cortisol is an essential component of our alarm reaction it is important that it dissipates quickly. When stress or threat occurs frequently there may be a continuously high level of cortisol in the body. Cortisol production may reduce to compensate for this, leading to deficiencies of cortisol in the system (Kolk, 2003). Chronically traumatised children often have a disturbed pattern of cortisol secretion involving persistently high or persistently low levels (Dozier et al, 2011). Both high and low cortisol levels are implicated in many serious illnesses in adulthood. The Adverse Childhood Experiences (ACE) study has identified a correlation between the number of adverse childhood experiences and the risk of succumbing to many chronic or life- threatening illnesses in adulthood (Anda et al, 2006).

Hyperarousal and dissociation

Humans have two opposite physiological responses in threatening situations. Initially sympathetic nervous system activity increases leading to elevated heart rate, blood pressure and respiration. If running away or fighting back are possible this arousal increases. Increased blood flow to the limbs and secretion of endorphins enable the person to temporarily ignore pain and improve ability to fight or run. If, however, escape is impossible or aggression ineffective the opposite 'freeze' response is triggered. Heart rate and respiration reduce and blood flows away from the extremities. This reduces blood loss from injury and may prevent detection by a predator. This dissociative response is protective physiologically but also allows trauma to be experienced at a distance.

The more serious and long lasting the threat the more intense is the response. As the perceived level of danger increases, capacity for reflection decreases and our sense of time contracts, leaving us to respond reflexively with no concern for consequences. In situations of extreme terror and danger people are capable of an overwhelmingly violent response or can completely cut off from bodily and psychological experience (Perry et al, 1995).Their relative lack of strength means women and young children are more likely to have a dissociative response to severe danger than older boys and men. In situations such as torture or sexual assault, however, where physical escape is impossible, dissociation is the most adaptive response for anyone. Traumatised children are likely to demonstrate both hyperarousal and dissociation at different times to manage their distress and anxiety.

Both hyperarousal and dissociation are effective in the short term. If children cannot regain a calm state, perhaps because the threat persists, or their caregivers do not provide attuned support, then their physiological and emotional reactivity may remain high. They can move from apparent calm to extreme terror very quickly. They may become ferociously aggressive or completely cut off in response to invisible cues. These reactions may be interpreted by adults as unprovoked 'mindless' violence or 'dumb insolence' which may evoke a punitive response rather than a curious, empathic one which seeks to understand the meaning of behaviour.

Many children in care have experienced both developmental trauma adversely affecting development of the higher structures of the brain and complex trauma leaving their lower brain over-reactive to stimuli. Perry (1997) describes this as the 'malignant combination' in which children react strongly and negatively to perceived threat but may be unable to use their cortex to control this response.

Traumatic triggers

Creating connections between neurons is the main work of the brain. This provides us with our capacity to learn and develop throughout our lives. The brain is able to make connections between a particular experience and all the sensory stimuli present in our environment at that point, so when we again encounter the stimulus, it can evoke powerful and emotional memories of an event, person or place. This is how sensory triggers that evoke traumatised responses are created. It is adaptive to recognise instantaneously cues that suggest danger. Often these sensory memories are unavailable to the conscious mind but are embedded deep in the lower brain that reacts to threat. Some sensory cues are likely to provoke alarm in us all, such as sudden unexpected loud noise or rough aggressive touch. Children's traumatic histories are all different, however, and the same sensory experience that evokes warm memories in some people, such as the smell of a loving parent's perfume, can trigger terror in a child who relates this scent to an abusive adult (Gaskill and Perry, 2012). Such conditioned responses occur to a range of different triggers but the child is unlikely to be consciously aware of why they have reacted so strongly and may try to find a 'rational' explanation for their behaviour both for themselves and others.

Therapeutic responses

Neurosequential Model of Therapeutics (NMT)

NMT suggests that effective intervention with traumatised children must be based on sound neurobiological principles (Perry, 2009). The impact of trauma depends on the age of the child, the type and severity of the trauma and the presence or absence of supportive or protective factors for the child. NMT is not a therapeutic intervention but it organises developmentally-informed information about a child's history and current functioning to plan appropriate intervention. It emphasises that trauma can affect the development of the brain so that children function at a developmental age much lower than their chronological age. NMT identifies an appropriate therapeutic approach taking into account the actual level of a young person's brain development rather than exposing them to an intervention irrelevant to their developmental need. Every child's history is different and their pattern of brain development will reflect their individual experience. Perry argues that interventions should influence brain areas that are under-developed or in need of regulation. For example, a child struggling with basic regulatory skills will not be helped by a treatment dependent primarily on words. NMT also focuses on providing help in a way congruent

with neuroscience. The brain learns best through constant repetition which means that the key therapeutic adults for severely traumatised children are their carers and teachers rather than traditional therapists. Moreover interventions using rhythm such as music or dance enhance learning as well as supporting the development of regulatory capacity. Children are also more likely to engage with therapeutic activities if they are intrinsically rewarding and relational.

Phased intervention

Most current therapeutic interventions for traumatised children emphasise that a phased approach is necessary. Although the language used varies, a similar sequence of intervention is apparent. Until children are both safe and feel safe, recovery is unlikely. Creating a feeling of safety for children who mistrust adults and resist their support can be very difficult. Traumatised children present behaviour that may evoke fear and anger in adults, yet these adults must create a sense of warmth and predictable availability for children to feel safe. Children next need to learn to regulate emotions and impulses. They need support recognising their own and others' emotions and taking responsibility for their actions without being overwhelmed by shame. Developing the capacity to self-regulate and become accountable requires safe, positive relationships with adults who can scaffold children's learning. Finally children need to understand the impact of trauma on their lives to be able to develop competence and invest in their own futures. Recovery from trauma can lead to post-traumatic growth for some children that can leave them more resilient and more competent than their non-traumatised peers (Tedeschi and Calhoun, 2004).

The ARC (Attachment, Regulation and Competency) approach provides practitioners with guidance and tools for working with traumatised children (Blaustein and Kinniburgh, 2010). Proponents of ARC emphasise that children need to revisit different phases as they encounter new challenges in their lives. Another model providing an integrated approach to working with trauma and developing resilience is Real Life Heroes (RLH) (Kagan and Spinazzola, 2013). RLH involves a rigorous implementation process which ensures professionals work together around the child and family or carers. This challenges the silo-like response that often characterises professional involvement with traumatised children. When children do not experience a developmentally relevant staged intervention, attempts at therapeutic intervention may be ineffective and potentially retraumatising.

Whole system approaches to trauma

Systems intended to support, care for or educate children may themselves contribute to the dysregulation of traumatised children (Barton et al, 2012). Bloom (2010) suggests that decreased resources, increased demand and unrealistic expectations create organisations that are crisis-oriented and demoralised. Some professionals are drawn to care by their own adverse histories and some may be experiencing current personal difficulties. Bloom describes parallel processes occurring between the organisation, the staff group and residents affected by trauma which can escalate distress for all concerned. She argues that organisations must move from a crisis and controlling orientation to an open, democratic one which can create a safe haven where people recover from trauma. Bloom also highlights the importance of emotional regulation and dealing with loss so that traumatised people can envisage and invest in a positive future. Trauma Systems Therapy (TST) has been used with children living in the community as well as those in state care (Brown et al, 2013). A trauma system is one with both a traumatised dysregulated child and a social environment either unable to help the child regulate their emotions or contributing to their dysregulation. TST emphasises integrating different interventions so children receive appropriate care at the right time. There is also a relentless focus on examining factors within the team and milieu that contribute to a child's dysregulated distress.

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Although few teachers receive training about trauma, there is growing recognition that traumatised children may need extra support in schools. Although the traumatic history of some children may be known to teachers, there will always be children whose trauma is hidden. A trauma-sensitive school where staff understand trauma and where timetable, curriculum and social environment are organised to help traumatised children, causes no problems for untraumatised children and may create a more benign learning environment for everyone.

Implications for practice

Most children in care have experienced significant trauma but our care system may potentially create further damage rather than supporting recovery. Often difficult behaviour results in an excessive focus on control rather than understanding meaning. Looking after children, hurt and betrayed within their closest relationships, requires adults to withstand mistrust and hostility whilst remaining connected and relational with children in their care.

This requires personal commitment from individual practitioners, but also demands an increase in support and training offered to them and a shift to a relational and attachment-promoting approach across services. Trauma theorists confirm the common perception that children in care are often functioning at a different developmental level than would be expected by their age. An essential challenge is to understand a child's developmental needs and yet be able to provide for them in a way respectful of their chronological age.

Training and support for staff and carers

The Code of Practice for Social Services Employers makes clear the responsibility that employers have to provide training and support to practitioners. Understanding the impact of trauma requires both cognitive and emotional learning. This is best accomplished by linking information about trauma with practitioners' own experience of caring for or educating traumatised children. Rather than employing a simple didactic approach it should include reflective space for participants to consider their own attachment and trauma histories as well as those of the children they care for. Golding, (2013), for example, has created a training resource for foster carers and adoptive parents incorporating concepts from attachment and trauma theory with practice-based discussion. PACE, a parenting attitude characterised by playfulness, acceptance, curiosity and empathy is explored in depth and carers are encouraged to try this out between sessions. She also introduces the concept of mind-mindedness to help carers understand the internal worlds of children and fill developmental gaps created by an early failure of attuned and mind-mindful parenting. As well as increasing carers' knowledge, the course aims to decrease their stress and thus contributes to the stability of placements.

Unless training is reinforced by regular supervision and consultancy and embedded within a trauma-sensitive organisational system, it will be unable to change children's experience significantly. Moreover, engaging with traumatised children in an open and connected way is itself stressful and difficult and there is always a risk that practitioners and carers will experience vicarious trauma. 'Blocked care' (Baylin and Hughes, 2013) is a concept that describes the neurological impact on adults of caring for children who are unable to engage in reciprocal relationships. They describe brain-based parenting as a way of investing in reflective support that can avert dangers to both children and those who care for or educate them. Adults closely involved with traumatised children are usually more able to support their recovery than CAMHS professionals. There is, however, a very important role for CAMHS teams in providing a regular consultative service to foster carers, residential workers and social workers caring for traumatised children.

Creating safety

At the heart of trauma is terror. However painful their family experiences have been, children in care suffer further loss of everything that is familiar to them when they are removed from home. They have to cope with new routines and rituals, a different rhythm to their day and strange people who behave in ways that are unfamiliar and therefore frightening. Often when children express their confusion and distress by difficult behaviour, professionals move them to a more 'suitable' placement. Safety for children requires stability and the support of existing school and care placements. Traumatised children often test whether adults caring for them can accept and survive them even at their most challenging. Although children recover from trauma through the creation of strong, positive relationships with adults, their previous experiences can make close human contact very frightening for them. Paradoxically the people that children are most likely to attack or verbally abuse are those with whom they are beginning to develop good relationships.

Child care practitioners may be unaware of the profoundly difficult histories children have. Indeed many people fail to recognise the significance of early adversity and believe they are being helpful to the child by giving them a 'fresh start'. Understanding the impact of trauma in general and the specific experiences of individual children is key to providing safety for them. Some retraumatising triggers become obvious when we understand more of a child's history but we can never fully understand the child's daily life since birth or the meaning of traumatic events. Discovering what cues provoke alarm requires careful, empathic observation and listening as well as excellent communication between carers. Some organisations create safety plans with children and adults. These involve working out what may trigger distress, how distress is displayed through behaviour, what warning feelings exist in the body and what helps to calm the person. The inclusion of both adults and children in the process recognises that adults' stress reactions may trigger traumatised children into terrified and dangerous responses.

A sensory audit of environments where children live and learn can help to create safety. Our brains develop by recognising novel stimuli which may potentially indicate danger but, in order to manage the sensory bombardment we all experience, we quickly tune out familiar stimuli. Eventually we just

do not notice sensory signals that are familiar to us but which may be very frightening or arousing to children who are hyper-vigilant. Working alongside children, we may identify and eliminate sensory triggers that affect them negatively and also build in sensory cues that are soothing or appropriately stimulating. At times children's behaviour is considered difficult or controlling, for example, needing a light on throughout the night or being unable to sleep without music to fill the unbearable silence, but these may be attempts to feel safe. Helping children create a sensory environment that manages their traumatic responses and provides new experiences that evoke safety, allows them a sense of control over their distress that can build strength and resilience.

Traumatised children find change very difficult. Disruption of routines, even for a positive reason, can evoke panic in children. Clear stable routines are very comforting to children, particularly at times involving transition from one state to another, such as shifting from sleeping to wakefulness, or moving from one place to another, such as from home to school. Where change is anticipated it is important to explain the reasons and rehearse with children what will be different and how they will be supported. With unexpected disruption adults should be alert to the likely impact on children and proactively intervene to help them remain calm.

Once children feel safe with and attached to a particular adult then that adult's absence can be very dysregulating for children as they experience absence as abandonment. Fortunately the same brain capacity that creates traumatic triggers can also create associations between objects or sensory experiences and the safety experienced in a relationship. For instance, wearing a carer's scarf to school can help a child hold on to safety created by the relationship in the more threatening environment. The adult might record bedtime stories so that the child can be calmed by the adult's voice even when they are at work or leave small tokens or cards for a child to help them manage a more protracted absence such as a holiday. This type of attachment-supporting provision has often been perceived as inappropriate but children who have experienced severe attachment impairment and trauma require personalised claiming and support to recover. Such work should be understood by all involved in the child's care and organised in a planned and transparent way.

"Child care practitioners may be unaware of the profoundly difficult histories children have."

Helping children to learn to regulate themselves

Many traumatised children struggle to regulate emotions, attention and behaviour. Often adults address this with verbal approaches or counselling. Difficulties with basic self-regulation, however, reflect a disorganised and over-responsive lower brain that is unaffected by approaches relying on a functioning cortex. Children respond more to tone of voice and body language than to the actual content of the words. Moreover, traditional therapies usually occur weekly rather than providing frequent, patterned and repetitive approaches that help children regulate themselves. Some children and adolescents with regulatory difficulties are prescribed medication. While this may reduce the manifestations of dysregulation and provide temporary relief to both child and carers, the medication only masks the problems the child experiences and does not establish greater control.

Traumatised children may need the tactile and rhythmic experiences available to normally developing infants to learn to self-regulate. The positive experiences of early infancy such as holding, stroking and rocking that underpin development of self-regulation may be easier to replicate for younger children. Older children and adolescents need different opportunities to develop regulatory skills using rhythmic experiences such as trampolining, music or dance. Rocking chairs or swings also provide a chronologically appropriate experience that provides the patterned and repetitive movement reminiscent of early infancy. When children can accept soothing touch then massage or primary care experiences such as hair washing may calm a dysregulated child. Such experiences are more effective if they take place within a positive relationship and are experienced by the child as intrinsically rewarding.

Some challenging behaviours may be children's attempts to manage distress and to soothe themselves. Self-injury, overdosing and substance misuse all help children find respite from overwhelming feelings. Children may also engage in risk-taking behaviour to fill the emptiness they experience or create a skewed sense of belonging. Joining a gang or involvement in damaging sexual relationships may be attempts to compensate for the lack of earlier positive relationships. Children accustomed to terror may, at times, find calmness and order very disconcerting. In response they may recreate the adrenaline-charged situations they

"Many children in care have little experience of others responding to them empathically, which makes it harder for them to develop empathy themselves."

have been removed from, by engaging in violence and other anti-social behaviour. Recognising the roots of these challenging behaviours is essential in helping children find alternative ways to soothe themselves and find a sense of belonging.

The direct carers of children are most effective in helping them develop self-regulation. They can provide activities that support regulation and are also the most immediate role models for children. The emotional tone of a foster or children's home is dramatically affected by the capacity of adults to regulate themselves. If adults respond to children's distress in a calm but engaged way they demonstrate an alternative way of managing stress. When adults respond to difficulties by becoming dysregulated they replicate the damaging environments that characterised children's earlier experiences.

Developing emotional skills and accountability

Traumatised children may have little insight into their own emotions or awareness of the emotions of others. Many lack the experience of adults recognising and naming their emotional state when they were younger. The language of feelings may be alien and for many language is a way to get basic needs met and to control others rather than a means to share their inner world. Carers of very young children can provide the same sensitive and attuned recognising and naming of feelings that infants usually receive. Older children or adolescents, however, may find this intrusive or react with rejection or violence. An alternative approach which instead of 'looking inside their heads' provides suggestions of how people might feel in particular situations, may be more acceptable to them. This leaves children free to accept or deny the suggestion that they might have similar feelings. All children can benefit from learning about feelings vicariously through stories, television or play. It may feel safer to discuss what a character in a book or television programme might be feeling than to explore one's own experiences.

Many children in care have little experience of others responding to them empathically. This makes it harder for them to develop empathy themselves. Although children may react to other people's feelings this may be a self-protective response

because they have needed to be alert to their caregivers' emotional states in order to survive. If adults are unable to respond with accurate empathy this confirms the child's experience of being unknown and unknowable which in turn makes it hard for them to understand others. Moreover, children need support to manage their own responses as it is difficult for anyone to remain empathic when they feel threatened. The care environment offers multiple opportunities for children to understand their impact on others, but unless adults help create a culture where such exploration is safe, such opportunities may be lost.

Traumatised children may experience feedback about their own behaviour or attitude as intolerable because it activates their overwhelming sense of shame. Carers can struggle to hold children accountable without evoking extreme negative reactions which make the situation worse. Children do, however, need to understand the impact of their behaviour and excusing anti-social behaviour such as violence, lying or stealing because of their trauma is unhelpful. This dilemma can be tackled by ensuring that discipline or correction of children only occurs after a warm and empathic connection is made. Most behaviour management undertaken by parents is based on learning theory. This requires children to understand cause and effect and also to have the capacity to separate themselves from their behaviour. For traumatised children techniques that require the removal of attention can be experienced as annihilating. Children must be accountable for their actions, but adults need a calm, connected approach which ensures that any rupture of the relationship is quickly repaired. Consequences should be natural or logical so that children begin to link cause and effect more accurately and occur as soon as possible after the event/behaviour. Moreover helping children make reparation to those negatively affected by their behaviour also supports the development of empathy. When children feel understood and cared about they begin to tolerate the correction of their behaviour. Children in care, however, have so many people involved in their lives they may be forced to continually revisit their behaviour which can re-evoke the original shame and undo any benefit achieved by an empathic and connected response.

Resilience and strength-based approaches

All children have a unique set of strengths, skills and talents. Often, however, the emphasis for children in care is primarily on their difficulties and deficits. To survive trauma and thrive in their future lives children need hope that recovery is possible. Dismal figures about care leavers in the prison or mental health systems, homeless or dead, however, portray a view that care leavers are destined for failure. In reality many care leavers lead extremely successful lives and these positive role models should be available to children to provide an alternative vision of the future for them (Duncalf, 2010). Workers and carers too, need to believe in the capacity of children to grow and develop even in the face of very challenging behaviour.

Some interventions that help children recover from trauma such as music, dance and exercise can become hobbies which give them adaptive ways to deal with future stress. Children's strengths or talents should be recognised and supported because, as well as being pleasurable, they enhance the development of competence and a positive sense of self. Children should never be deprived of such resilience-building activities as a sanction for difficult behaviour.

Children's capacity to exercise responsibility and have a positive vision of their own futures, can be seriously affected by their emotional state. Even children who begin to feel safe and are usually able to self-regulate can be destabilised by an unexpected stress. Children's capacity can be dramatically diminished when they move from a relaxed, calm state to one of alarm or terror. Adults need to know the child's normal developmental stage but also need to be alert to signs of anxiety or arousal. Intervening early helps children both recognise and manage their distress which strengthens children's capacity to control their own responses.

"Often, however, the emphasis for children in care is primarily on their difficulties and deficits. To survive trauma and thrive in their future lives children need hope that recovery is possible."

Conclusion

Adults who engage with traumatised children can either add to their difficulties or support their path to recovery. Severely traumatised children can not only recover, they can become even more productive and loving than their non-traumatised peers. To achieve resilience and growth, children in care have to work hard and be committed to their own development, but the adults they encounter on their journey to adulthood can help them recover or they can confirm their negative beliefs about the world and people within it.

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Acknowledgements

This *Insight* was reviewed by Neil Macleod (Scottish Social Services Council), Colleagues from NHS Education for Scotland, Colleagues from Scottish Government, Estelle Carmichael (East Dunbartonshire Council) and Debbie Lucas (South Lanarkshire Council). IRISS would like to thank reviewers for taking the time to reflect and comment on this *Insight*.

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