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Understanding and helping children who have experienced maltreatment

Kim S Golding

Abstract

Children who experience maltreatment from within their families can suffer trauma that is devastating to their physical and psychological development. The label developmental trauma has developed to describe this trauma and to guide diagnosis. This has been expanded to describe seven domains of impairment. Together these help the clinician to provide a formulation of a child's difficulties which avoids multiple diagnoses and can guide treatment planning. Dyadic Developmental Psychotherapy and Practice (DDP) is an intervention model that can meet the therapeutic needs of the children alongside the support needs of parents and practitioners caring for them. The attitude of PACE (playfulness, acceptance, curiosity and empathy) is central within DDP interventions, used by therapists, parents and practitioners who together make up the network around the child. Tailoring DDP interventions can be guided by a pyramid of need developed by the author. This helps clinicians develop flexible intervention packages tailored to the needs of the child, family and practitioner. Within the paper these ideas are explored illustrated by the fictional example of Janice. She was maltreated in early childhood and now lives in foster care with Mary and Simeon.

Keywords child maltreatment; developmental trauma; dyadic developmental psychotherapy and practice DDP; pyramid of need; relational trauma

Introduction

It is a sad irony that I write this paper at a time when a generation of children are experiencing the trauma of living through the Covid-19 pandemic. Experiencing trauma in childhood can have a life-long impact. Many of these children will recover, changed but also resilient. Those who develop resilience from this experience will not necessarily be the ones who have been least impacted by it. What will make the difference will be the extent to which children have the comfort of family members to restore a sense of safety. For all of us it will be our relationships that get us through. Children especially need connections to trusted others to support them in processing their experience, mourning their losses, and restoring emotional well-being.

Imagine then the devastation for children of experiencing trauma, not from an external threat like a pandemic but from within their family. Abuse, neglect, exposure to frightened and frightening parents, separation and loss all erode sense of safety, destroy trust in others and lead to defensive adaptations which whilst aiding survival reduces resilience. A virus attacks from the outside and we find strength in drawing together to recover from it, even if some of this needs to be done remotely. Maltreatment by family members is from within, disrupting emotional ties and reducing opportunities for recovery. Relational trauma leaves children with a frightening sense of aloneness alongside deep-seated fears of trusting and connecting with those who could offer safety and emotional support.

> *The most traumatic aspects of all disasters involve the shattering of human connections. And this is especially true for children. Being harmed by the people who are supposed to love you, being abandoned by them, being robbed of the one-on-one relationships that allow you to feel safe and valued and to become humane — these are profoundly destructive experiences. Because humans are inescapably social beings, the worst catastrophes that can befall us inevitably involve relational loss. As a result, recovery from trauma and neglect is also all about relationships — rebuilding trust, regaining confidence, returning to a sense of security and reconnecting to love.*[1]

Relational trauma is also described as developmental trauma in recognition of the impact of traumatic experience early in a child's life from within the family on the development of the child.[2] When we meet these children within our clinical practices it can be hard to make sense of the range of difficulties presented.

Developmental trauma: diagnosis and formulation

Children, like Janice, who have experienced multiple forms of abuse and neglect present with a range of difficulties that are confusing to understand. If the context of trauma is not considered children can receive multiple diagnoses which neither do justice to the complexity nor guide effective intervention. Janice's case notes include mention of ADHD, ASD, Attachment disorder and oppositional defiant disorder.

If diagnosis is guided by an understanding of trauma the clinician can still run into difficulties. For example, the diagnosis of PTSD is not developmentally sensitive, and most developmentally traumatized children do not meet the diagnostic criteria.

Whilst Developmental Trauma is not recognized as a formal diagnosis it has become widely used to describe and explain the difficulties displayed by maltreated children. This recognises the importance of formulation, based on an understanding of past experience as well as current presentation, alongside diagnosis to guide intervention plans.

Based on a literature review, Cook et al. describe domains of impairment that can occur when a child, like Janice, has experienced complex developmental trauma[3] (see Figure 1). This provides a helpful structure for formulation and intervention planning.

Biological

The traumatic experience impacts on brain development and interferes with the integration of left and right hemisphere brain functioning. This makes it difficult for the child to access rational

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Janice's story

Janice is a bright 10-year-old girl living in foster care with Mary and Simeon. They describe her as the most controlling child they have cared for.

Janice looks small for her age and is a puzzling mixture of immaturity and insightfulness. She is an active, impulsive child who finds it hard to focus on anything except her video games.

Living with Janice is confusing. She can be compliant and clingy but changes to angry and oppositional with little warning. She is hypervigilant and becomes emotionally aroused very quickly. At these times she can be physically and verbally aggressive. Meltdowns go on for hours leaving Mary and Simeon 'walking on eggshells', afraid to set off another storm but unsure what triggers them. Afterwards Janice is remorseful and berates herself for being naughty. She will pack her bags anticipating moving again.

Sometimes Janice follows Mary around the house, talking to her with a small, baby-like voice and climbing on to her lap when she gets the chance. This can be an uncomfortable experience for Mary as Janice tries to put her hand down her top. Mary reflects that it feels like Janice wants to climb inside her. If Janice perceives Mary's attention to be elsewhere, she will do anything to get the focus back onto her.

At times Janice appears frightened of Simeon. At these times she will try and placate him, for example, sitting on his lap and trying to kiss him on the lips. Simeon feels extremely uncomfortable and is concerned to be left alone with Janice.

Janice has little empathy for her foster brother, Pascal, although she knows just what to do to wind him up. She enjoys seeing him in trouble. She has been known to hurt herself whilst blaming Pascal.

To return to Janice, she was born to a mother who was in a domestically violent partnership. She frequently used drugs and alcohol to cope. Janice had a range of caregivers, including neighbours, friends, and relatives. She was removed into care when she was three years old. This followed an incident when she had been left home alone for several hours. Her initial foster placement was a busy household within which Janice's needs were not recognized. Initially a placid child who slept a lot, Janice developed into a child with significant behavioural difficulties. Her frequent tempers and dysgulated behaviours put a strain on the placement and she subsequently moved another three times before settling into a fragile long-term foster placement with Mary and Simeon when she was eight years old.

thought in the face of overwhelming emotion. Children can have ongoing difficulties focusing attention and modulating arousal. In addition, nervous systems develop tuned to respond to danger, making it difficult to relax when environments become safer.

Affect regulation

Children who are not cared for by a regulated and regulating adult in early life do not develop good capacity for regulation as they mature. They need more help from caregivers than other children of the same age. Additionally, it is difficult for children to seek and use this help because early experience has led to the development of blocked trust in caregivers.[4] Children are both overwhelmed by aroused or numbed emotions and resistant to support with this emotional experience. This can lead to intense periods of dysregulation alternating with overreliance on dissociation (a shutting down from emotional experience).

Dissociation: alterations of consciousness

Awareness of self and experiences are altered through dissociative adaptations. Three adaptations are suggested. The automatization of behaviours without the conscious thought that would allow for planning and organized goal-directed behaviour; compartmentalization of painful memories and feelings; and lack of awareness of emotions and self.

Attachment experience

Lack of a secure attachment results in adapted attachment behaviours as children anticipate further unavailable or traumatic parenting. Children display either excessive dependency in or disengagement from relationships. Janice's attachment patterns are disorganized and controlling demonstrating a combination of these.

Controlling attachment patterns impact on the child's ability to enter intersubjective relationship experiences. Trevarthen describes intersubjectivity as a process within which experiences are shared, each person influences the other in making sense of these.[5] This describes a reciprocal influence and allows children to experience themselves being held in mind by another. They learn about themselves and the world through these influences. If the parent provides an experience of loving the child, the child in turn experiences herself as loveable.

Behavioural regulation

It is hard for developmentally traumatized children to behave in line with expectations when behaviours have developed to cope with living in unsafe environments. Under controlled behaviours displayed through aggression and oppositional difficulties are quickly triggered when Janice experiences Mary as unavailable or herself as bad. She can also move into over controlled behaviours such as becoming overly compliant when with Simeon.

Cognition

There may be difficulties in cognitive development. For example, delays in expressive and receptive language, and deficits in attention, abstract reasoning and problem solving are common. It is not unusual for children like Janice to have better expressive language skills which they can use to mask the cognitive difficulties that they are experiencing. This can increase frustration for Mary and Simeon and her teachers who perceive her as more cognitively able than she is.

In addition, Janice was exposed to alcohol and drugs *in utero*. This may have further compromized the development of executive functioning. The executive functions control integrated brain functioning with cognitive and emotional parts of the brain working together. These guide, direct and manage cognitive (thinking), emotional and behavioural tasks. Executive functioning allows purposeful, goal directed and problem-solving

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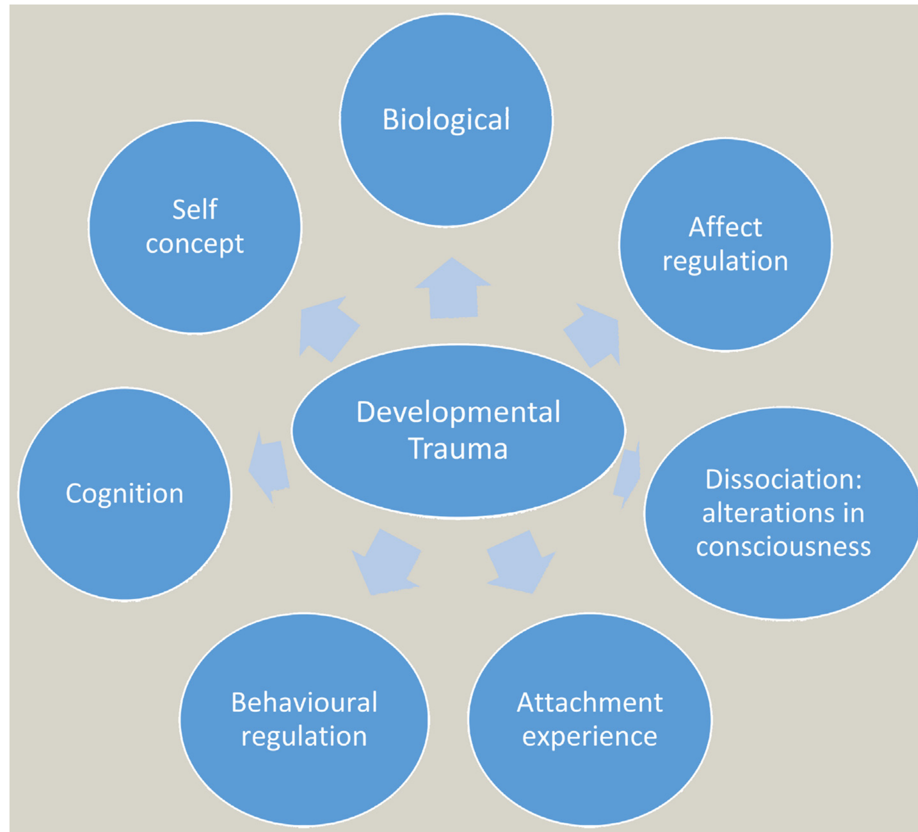

Figure 1 Domains of impairment from experience of complex developmental trauma. Data from Cook et al. (2005).[5]

Mary and Simeon witness a more mature Janice when she is calm. At these times she appears well able to focus and reflect. It is confusing when she becomes more emotionally aroused and immature, especially when the triggers for this change of state are not always apparent.

Janice tends to dysregulate quickly when she perceives Mary as not available, disappointed in or disapproving of her. With Simeon she becomes withdrawn and shut down.

behaviours. When executive functioning is under-developed children like Janice will struggle with these behaviours especially when they are experiencing increased stress.

Self-concept

Janice experienced unreliable, non-nurturing and frightening relationships whilst her sense of self was developing. Janice's self-concept developed around feeling ineffective, helpless, and unlovable. Additionally, Janice did not have caregivers who could attend to and repair the many relationship ruptures that are a normal part of caring for a child. Rupture without repair leaves children living in unregulated, toxic shame impacting on sense of self. Like many children who experience shame without regulation, Janice has developed a sense of herself as bad and thus blames herself for negative experiences.

The example of Janice highlights the multiple difficulties and challenges that can develop in maltreated children. Understanding these in relation to past experience helps practitioners to tailor flexible interventions.

Dyadic Developmental Psychotherapy and Practice (DDP): a model for intervention

Developmental trauma provides an environment lacking in healthy relationships. Children learn to mistrust relationships and to adapt to a world that is inherently unsafe. This way of being is resistant to change. When parenting changes to provide relationally safe and healthy environments, the children continue to anticipate danger and to behave in line with the adaptations they have previously developed. The children need interventions to help them to move out of destructive patterns when living in safe environments.

Without guidance and support caregivers can become defensive, frustrated and with a sense of failure. These responses confirm the children's beliefs that they remain in danger. Interventions therefore need to consider the needs of the caregivers as well as the children. Social Care, Health and Education

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This explains why Janice continues to behave in ways that are destructive even though she understands right from wrong. For example, she continues to steal from friends at school even though she has lost friendships because of this. Janice also lacks memories and seems unaware of her emotions. It is difficult for Mary and Simeon to help Janice with these difficulties. They must trust the process of helping Janice to feel safe and build relationships with them which over time will lessen dissociation.

Janice has developed behaviours to feel in control. This has left her less open to Mary and Simeon's influence. Janice's view of self as bad is therefore not open to their differing view of her as not bad. Mary and Simeon experience a sense of failure in their parenting. The hurt of this leads them to withdraw from intersubjective connection with Janice and controlling behaviours increase for all of them.

Networks around the child and family also need support in order to ensure that the child is living within supportive environments.

Dyadic Developmental Psychotherapy and Practice (DDP) is one model that can lead to flexible intervention packages (see Figure 2). DDP was originally developed by Dan Hughes as Dyadic Developmental Psychotherapy. It has developed and expanded beyond a psychotherapy intervention to include interventions which provide parenting support for families and practice support for social care, health and education networks. In recognition that the model is more than a psychotherapy, its name has been extended to Dyadic Developmental Psychotherapy and Practice; which is abbreviated to DDP.

DDP is a relational model which supports the children and parents to share corrective relational experiences. This provides the children with increased safety, within which and over time they can learn new, healthier ways of relating. This provides a secure foundation from which they can heal from their traumatic experiences.

To help DDP practitioners and parents to provide these safe relationships Dan Hughes suggests the attitude of PACE

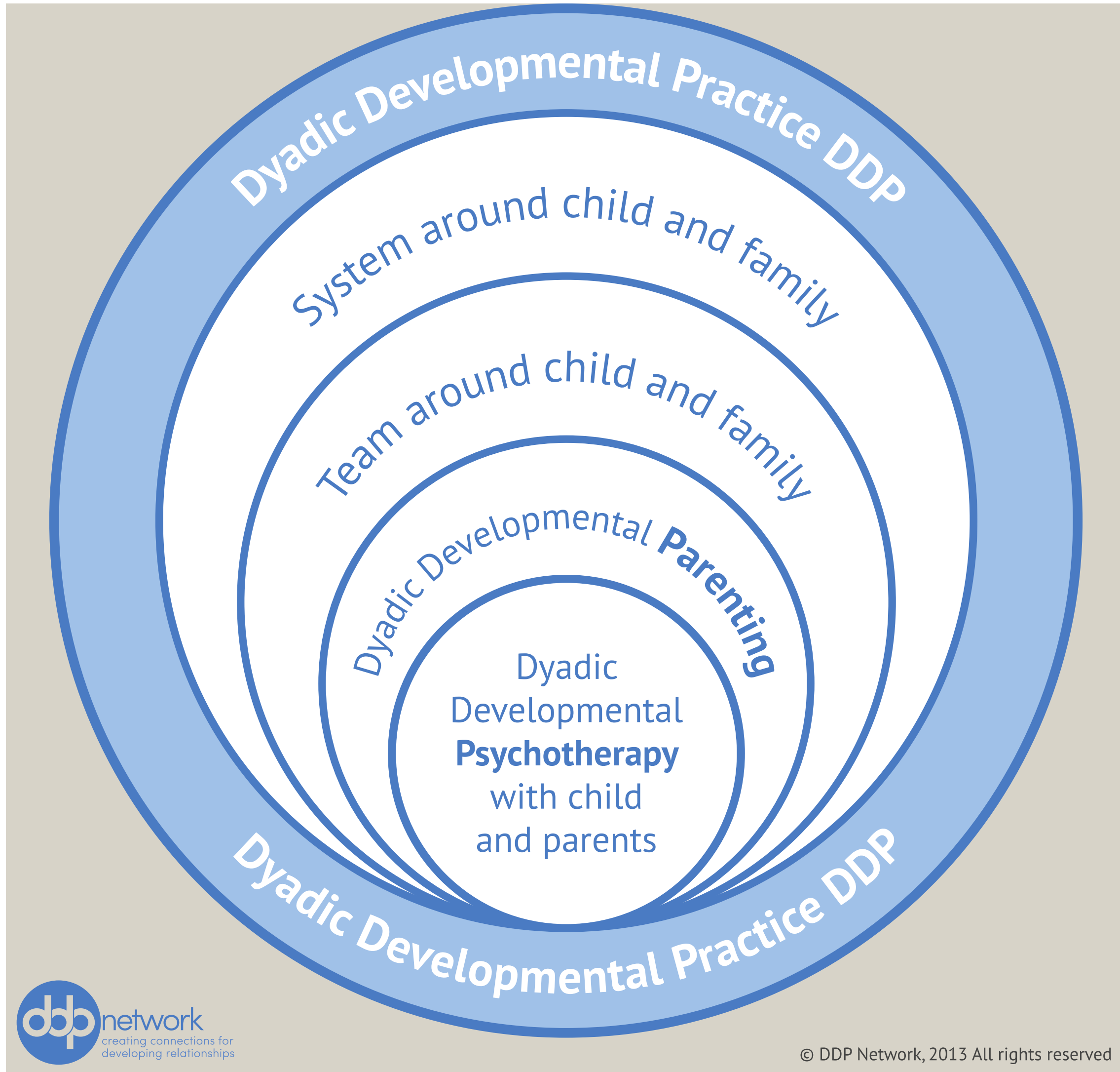

Figure 2 Dyadic Developmental Psychotherapy and Practice Model. Reproduced with permission from the DDP Network.

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Janice experiences the safety of a foster home which provides warmth, shelter, food, and recreation. She however continues to doubt in the permanence of this.
The DDP therapist provides parenting support sessions to help Mary and Simeon to understand Janice's fears. She helps them to find ways to communicate their understanding and care to Janice. This develops their emotional connection to her. The therapist also helps Mary and Simeon to provide necessary discipline and boundaries whilst maintaining this connection. They learn to recognize when the connection is lost and how to repair the ruptures in their relationship with Janice in order to restore it. This increases feelings of safety for Janice.

Janice does not trust in any relationships. She anticipates that she will be hurt and eventually abandoned. Mary and Simeon are helped to accept that Janice has these beliefs and to understand that this is not an indication that they are failing as parents. As they accept Janice's lack of trust paradoxically tentative trust increases.
The DDP therapist judges that this is a good time to begin therapy but cautions that this needs to be slow. He invites Mary and Pascal to accompany Janice in sessions. Initially this focuses on the therapist establishing safety and relationship with Janice. This builds a safe base for interventions to help strengthen Janice's relationship with Mary and Pascal. As therapy progresses, the therapist is vigilant to times when safety and relationship are becoming strained again, revisiting these levels of the pyramid as often as needed. Parenting sessions for Mary and Simeon continue alongside the therapy to provide the safety and relationship that they need.

Janice quickly dysregulates becoming oppositional and aggressive when she experiences herself as unimportant or disappointing to Mary. The therapist helps Mary to understand the strong fears, worries, and sense of shame that underpin these behaviours and to find ways to help Janice to regulate these big feelings. Janice is also quickly triggered by Simeon into withdrawal and dissociation. The therapist helps Simeon to recognize that this is because of reminders of her past. A look, tone of voice or even a shrug of his shoulders can act as triggers. Simeon is helped to notice and understand when this happens and to find ways of reconnecting and helping Janice to feel safe with him. Episodes of dysregulation and dissociation occur often in the early therapy sessions. The therapist uses his presence to help Janice to regulate. He also uses a range of sensory activities. He discovers that Janice liked building dens and can talk more easily from inside her construction.

Janice finds it hard to reflect. Her birth parents did not made sense of her experience for her. She was more likely to be ignored, criticized and ridiculed. It is also likely that foetal alcohol and drug exposure contributed to these difficulties, compromising the development of her executive functions. Consequently, she can be rigid, concrete, and inflexible, especially when stress and arousal are high.
In the therapy sessions her therapist makes sense of Janice's experience, wondering about how she is feeling and making guesses that she can agree with or not. At first, she finds this hard to tolerate, and will become dysregulated, dissociated and with a return to immature behaviours. As the therapist alternates brief reflection with regulating activities, Janice slowly begins to tolerate being understood. He then helps her to share this with Mary and Simeon so that she experiences being safely held in their mind as well.

Janice develops resilience patchily. This can be discouraging for Mary and Simeon. Sometimes it seems like they are making progress. Janice is less clingy with Mary and more engaged with Simeon. She even starts playing nicely with Pascal and shows empathy towards him. The next day, all this is a distant memory and she is 'back to normal'. Mary and Simeon find this harder to manage than when there is no progress at all. They need the therapist's support to manage these fluctuations. It is helpful to explore this during therapy sessions. As the therapist helps Janice to articulate her experience, Mary and Simeon gain increased understanding of what is happening.
The therapist now begins to gently dip into Janice's past to make sense of this experience in the present. Janice is getting an experience of her behaviours making sense rather than as evidence of how bad she is.

Janice has poor understanding of her early experience and her many placements within the care system. She believes that this is her fault and that she does not deserve a family. The therapist accepts these beliefs as understandable consequences of what happened to her, alongside demonstrating a different relationship in which he holds a different view of her. Gradually, as he dips into her past, making sense of some of her responses in the present she begins to express memories of her early life. Together they make sense of these memories and the therapist helps her to share them with Mary and Simeon. They begin to put together a story of her experience, current and past, which made sense to them all. This begins to revise Janice's view of herself as undeserving.
At home Janice is still very up and down. With continuing support from the DDP therapist Mary and Simeon grow in confidence and the placement becomes less fragile. The move to secondary school is a fraught time. Extra support is given to school staff and Janice is supported in a smaller learning base. This helps her to settle. At a review Mary and Simeon reflect that they can foresee many challenges ahead, but they feel cautiously optimistic.

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(playfulness, acceptance, curiosity and empathy). This attitude helps the adults to stay *curious* about the children's emotional experience; *accept* and *empathize* with this and find ways to enjoy their relationship with the child through *playfulness*. PACE offers emotional connection to the child which understands and validates her internal world of thoughts, feelings, beliefs and worries, and provides regulatory support when needed. The child feels unconditionally loved and supported. The child is then better able to manage the boundaries and restrictions the adults also apply, confident that she is valued and acceptable to the adult.

Adults offer the children the experience of a different way of being, one in which they learn to trust in social engagement. As they feel increasingly safe in these socially and emotionally connected relationships their nervous systems move out of defensive responding and opportunities for emotional growth arise. Alongside this the children develop increased capacity to reflect on their experience leading to new understanding about themselves and others. Therapy can now support children to make sense of and integrate their past experience.

Tailoring DDP interventions to a pyramid of need

DDP interventions need to be systemic and multi-level in recognition of the complexity of the difficulties that arise due to the experience of child maltreatment. The pyramid of need provides a visual way of representing this (see Golding 2013).[6]

The pyramid of need consists of a series of levels, with each level providing a foundation for the next one. The practitioner continually re-evaluates and adjusts interventions as the children move up and down the pyramid in line with current events and experiences.

Level 1, feeling safe

This level addresses the basic needs of all children to feel safe within their environments. Physical safety is provided by shelter, warmth, and food. Children also need the emotional safety of feeling understood and supported. If safety is compromized, interventions are needed to re-establish this.

Level 2, developing relationships

This follows naturally from level one, as relationships are the primary means of providing safety. Children who do not trust in relationships need help to develop this trust.

Level 3, comfort and Co-regulation

If children find it hard to regulate strong emotion, including feelings of shame, they will quickly dysregulate or dissociate when arousal increases. If they have not had good regulatory support in the past, they will not know how to use adults for this support in the present. This level represents the child's need for help to use regulatory support from trusted adults.

Level 4, empathy and reflection

Safety, trust, and co-regulation support children's emotional growth. With maturity they increase their reflective capacity. They better understand themselves, others, and their past and current experience. They develop more compassion for themselves and discover empathy for others.

Level 5, resilience and resources

With new experiences of safety, trust, and relationship children's sense of self changes. Their core beliefs that they are bad, unlovable and unacceptable are challenged by these new experiences. Their sense of identity is rewritten increasing self-esteem and contributing to resilience. The children will be better resourced to manage the challenges that lie ahead.

Level 6, explore trauma, mourn losses

This level recognizes the trauma and loss that the children need to heal from. They need help to make sense of their experience and to integrate this into their sense of who they are. Understanding and integration reduce their need for defences. They can grow and develop into the person they were always meant to be. The children need the pyramid in place in order to manage interventions at this level.

Conclusion

Maltreatment, exposure to domestic violence, separation, and loss early in a child's life is developmentally traumatising and can have a profound impact. Clinicians need to understand children's current difficulties in the context of their past experience.

Developmental trauma describes a range of domains of difficulties which can guide formulation leading to comprehensive intervention plans. Interventions need to be systemic and multi-level. This recognizes that child therapy is only one part of intervention which must also include support for parents, teachers, social care, and health staff who together provide a network of support for the child.

Dyadic Developmental Psychotherapy, Parenting and Practice (DDP) is a flexible model developed from an understanding of child development and the impact on it when children experience maltreatment. DDP practitioners provide parenting support and guidance, advice to school staff, consultation to professional networks as well as therapy for the child, supported by parents. This tailors support to all levels of the pyramid of need. In this way children can benefit from living in safe environments where they can learn to trust in relationships. They are helped to develop capacity for regulation and reflection with confidence to seek support from parents when needed. This develops resilience and psychological resources to manage stress both in and outside of the home. With this support in place, therapy can be used to address the trauma and mourn the losses that children have experienced.

The road to recovery can be a long one for developmentally traumatized children. This is compounded when neurodevelopmental difficulties also arise stemming from prenatal substance exposure. Children are resilient and when living in supportive environments healing will occur with the help of well-resourced parents who are getting their own support needs met as well. ◆

REFERENCES

1 Perry BD, Szalavitz M. The boy who was raised as a dog: and other stories from a child psychiatrist's notebook - what traumatized children can teach us about loss, love, and healing. NY: Basic Books, 2006; 231–2.

Crown Copyright © 2020 Published by Elsevier Ltd. All rights reserved.

2 van der Kolk B. Developmental trauma disorder. Towards a rational diagnosis for children with complex trauma histories. *Psychiatr Ann* 2005; **5:** 401–40.

3 Cook A, Spinazzola J, Ford J, et al. Complex trauma in children and adolescents. *Psychiatr Ann* 2005; **35:** 395–8.

4 Baylin J, Hughes DA. The neurobiology of attachment-focused therapy: enhancing connection & trust in the treatment of children and adolescents (Norton Series on Interpersonal Neurobiology), vol. 2. NY: W.W. Norton, 2016.

5 Trevarthen C. Intrinsic motives for companionship in understanding: their origin, development, and significance for infant mental health. *Infant Ment Health J* 2001; **22:** 95–131.

6 Golding KS. Nurturing attachments training resource. Running parenting groups for adoptive parents and foster or kinship carers. London: Jessica Kingsley Publishers, 2013; 323.

FURTHER READING

Golding KS, Hughes DA. Creating Loving Attachments. Parenting with PACE to nurture confidence and security in the troubled child. London: Jessica Kingsley Publishers, 2012.

Howe D. Child abuse and neglect. Attachment, development and intervention. Palgrave, 2005.

Hughes DA, Golding KS, Hudson J. Healing relational trauma with attachment-focused interventions: Dyadic Developmental Psychotherapy with children and families. NY: W. W. Norton & Co, 2019.

Porges SW. The pocket guide to the polyvagal theory. The transformative power of feeling safe. NY: W.W. Norton & Co, 2017.

Tronick E. The neurobehavioural and social – emotional development of infants and children. NY: W. W. Norton, 2007.

WEBSITE

There are a range of resources on the DDP website, ddpnetwork.org. This includes an expanded version of the Pyramid of Need, including an assessment grid that can guide practitioners in the use of DDP interventions. See: https://ddpnetwork.org/backend/wp-content/uploads/2019/04/Pyramid-with-DDP-assessment-matrix581.pdf.

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