

# NEW FRONTIERS IN TRAUMA TREATMENT

**DR BESSEL VAN DER KOLK** is the Director of the Trauma Centre in Brookline Massachusetts and the Complex Trauma Treatment Network. He is also Professor of Psychiatry at Boston University School of Medicine's Trauma Centre. On a recent lecture tour to Australia he discussed the treatment implications of the evolving understanding of the neurophysiology of trauma. **DEB GOULD** reports.

In any field of science, art or popular discourse, there are cycles of understanding and practice that appear, at the time, to be absolute. This is never truer than for the field of trauma and its treatment. There are several researchers, authors, and clinicians who are currently involved in conceptualising trauma. Dr van der Kolk is one of them. His passion for the topic was infectious but he challenged the established practice, saying that all trauma treatment must go beyond the thought processes and into the body.

In another challenge to mainstream conceptualisations of the nature of Post Traumatic Stress Disorder (PTSD), Dr van der Kolk described the impact of traumas experienced by those who had survived child sexual abuse, torture, kidnapping and gang rape. These groups are united by several factors – their trauma is complex and multiple, they have been immobilised, have no power to influence their fate and they are exposed to violence or threat by other human beings. This is deeply connected to attachment neurobiology. Preceding popular writing in this field by a good decade, Dr van der Kolk is gratified by the amount of work now confirming his earlier work. In 1988 he said: “ongoing neurobiological development is strongly influenced by the social matrix, particularly by the quality of attachments to caregivers”.

It is now widely acknowledged that an attachment relationship that is attuned to the child’s needs facilitates the development of a resilient nervous system that can tolerate states of arousal, particularly fear. On the other hand, the impact of neglect and trauma on young children is profound and includes alterations in the form and function of the nervous system.

Through advances in neuroimaging, we can now see how trauma also impacts directly on the adult brain. This is particularly so in the limbic system, the “emotional brain”. Dr van der Kolk describes these changes: “Firstly, increased activation of the amygdale, a small gland in the limbic system, leaves the person vulnerable to strong emotions; secondly, left hemisphere functions are suppressed, particularly in the areas producing language. This creates difficulties in verbal expression; and thirdly there are changes in the frontal cortex, the part of the brain responsible for thinking, reasoning, and making decisions. In traumatic circumstances it is overridden leaving the person unable to analyse the experience in order to take action, including seeking constructive soothing.”

Dr van der Kolk summarises this no-win situation: “the traumatised person feels intense fear, is unable to communicate this and is unable to be soothed”.

These neurological changes underlie the symptoms of PTSD. These symptoms include intrusions of past trauma into the present, hyperarousal of the neurophysiological system and numbing of responsiveness.

Highly charged with fear, the amygdale stores traumatic experiences as disjointed memories of sights, smells, sounds and body states. These can be

brought up now and become triggers for reliving the experience in the present. An example is the refugee man whose heartbeat is increased while running for the bus. This could be a bodily trigger for the memory of a rocket attack where his pulse was increased due to fear. Similarly, the sensation of hunger is an everyday experience that guides us to eat. Refugees might literally be unable to obtain food and normal hunger can become a trigger for fear or desperation.

At the same time that these memories are created, the areas of the brain dealing with memories for place and time are suppressed. These memories later intrude into the present. Rather than say “It happened”, the traumatised person says “It is happening”. And if it is happening, neurophysiological emergency reactions need to be put in place and a cascade of neurological and hormonal responses is set in motion to ensure survival. This is referred to as flight, fright or freeze, which might be appropriate during the traumatic experience. However, they might continue when the person perceives many events as being traumatising; including positive or neutral events. The behavioural options are to freeze and withdraw, or overreact and become anxious or angry and act aggressively. These behaviours are the symptoms of chronic PTSD.

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Where trauma is complex, such as that experienced by refugees, there are complex responses. These responses include symptoms of PTSD but extend into other areas of functioning – personality and behaviour patterns seem to develop around the trauma. People experience long-term life and relationship difficulties, they are susceptible to mental illness and lack resilience to stress. Of particular concern are difficulties with the regulation of feelings – when a strong feeling is felt, it develops a life of its own and the person struggles to contain it. Dr van der Kolk refers to this as being “hijacked by emotions”. The acting out of such feelings is the impetus for many levels of intervention as it might include violence or self-harm in the person’s attempt to regulate their feelings.

The first to admit that he doesn’t have a magic pill for treating trauma, Dr van der Kolk entertains many possibilities advocating the use of different methods at different times in a phased process. The treatment approach of STARTTS is very much in line with this. It is one that begins with safety.

In refugee work, the sense of safety is initially facilitated through developing a sense of certainty about

basic needs for housing, education, health care and food.

Thus, at STARTTS this phase would include a practical focus for sessions. For Dr van der Kolk, it is body focussed: "Traumatized people often are terrified of the sensations in their own bodies". Developing safety in the body might be achieved in several ways, all aiming for some level of regulation or soothing in times of acute distress and with a longer term aim of making the nervous system less reactive. He talked about the need to "reset" the nervous system.

Many of these techniques follow the principles of biofeedback that teach physiological balance. Clients become aware of the relationship between their internal body states (e.g. regular pulse rate) and their emotions (e.g. a sense of calm) with the aim of learning to control their emotions. Of note here is that the techniques are not verbally based and are used successfully with refugee clients who are not yet fluent in English. People can 'see' their experience of their feelings and sensations and see how they change.

The application of Neurofeedback Training for trauma survivors is increasingly used at STARTTS and by Dr van der Kolk, with positive outcomes reported so far. This approach is one that attempts to balance the nervous system by giving feedback to the person about the electrical activity in their brain. For example, those who are hyperaroused are reinforced when they produce Electroencephalogram (EEG) changes that reflect calm. For those who are underaroused (eg are in numb mode) the protocol would be a stimulating one. Heart Rate Variability (HRV) is a parallel method. It is based on the premise that heart rate is directly influenced by the more primitive areas of the brain that continue to respond to trauma. Clients doing HRV training experience this, subconsciously, as an increase in their ability to calm themselves through breathing.

Another treatment used to facilitate neuromodulation and decrease hyperarousal is medication, particularly antidepressants. The aim here is for the person to tolerate stress and trauma reminders in the present thus decrease their distress and dysfunctional coping. This would also make it easier for clients to begin the process of working through their trauma in counselling. As would be expected, refugee clients also have a high rate of depression, which would also hopefully respond to the same medication.

Although criticised for endorsing unproven methods, Dr van der Kolk has continued to encourage research into methods whose efficacy had been questioned by mainstream trauma treatment. These included Eye Movement Desensitisation and Retraining (EMDR), which has since then been the subject of much research and now has a substantial evidence base, and Emotion Focussed Therapy (EFT). Both of these methods aim for trauma resolution without the need for verbal processing. Dr van der Kolk reported results of research into methods that helped survivors and emergency workers during the

attack on the World Trade Centre. It showed acupuncture to be a powerful technique and his work has been found to be well accepted by clients.

Dr van der Kolk also respects body work practices based on the deep link between posture and emotion. By implication, we can use postural change to change affect. Try this at home: Hunch your shoulders – do you feel a bit despondent? Sit up straight with head up – how do you feel?

As a yoga practitioner himself, Dr van der Kolk is well aware of the balancing effect on the nervous system of regular practice. He also advocates still techniques focussed on identifying internal states of awareness and of quiet – Mindfulness and meditation being two such methods. However, these techniques themselves can become unsafe for the person who has not yet dealt with some of their trauma. Dr van der Kolk points out that, in the silence of meditation, "demons" of the trauma might emerge. This is a note of caution to all clinicians – the client must feel safe and the therapist must be safe. He puts it this way: "we help our scared clients by being safe".

We try to achieve this by moderating our own arousal through attunement to our own sensations and emotions and own self-care practices. In addition, our skills enable us to actively and directly intervene where clients become distressed and retraumatised.

While all of the methods already mentioned help the client to feel in control, it is the therapeutic relationship that enables the client to use them. This trust and stability

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of the relationship opens the door for psychotherapy or counselling and it is the basis for healing.

Dr van der Kolk is famously sceptical about generic "talk therapy" where clients are encouraged to go over the story or narrative of their trauma in order to resolve it. He suggests that we avoid "repeated telling of the tragic past", noting that changing the trauma narrative does not necessarily involve telling the details of the trauma: "We can't talk our way out of feeling something powerful that is associated with a primarily neurophysiological response to danger," he says.

However, he is clear that some things must be put into words at some stage. Talking for many is a form of soothing – having an inner voice that puts things into place and helps us understand what is happening. But, again, it is not enough and with refugee clients it poses a few problems. In particular, the translation of body states into language that is then translated into another

language can cause the subtleties of the awareness to be lost.

STARTTS follows a multidisciplinary approach to the treatment of traumatised refugees. This involves interventions across many layers of the individual's life and is congruent with Dr van der Kolk's position.

He advocates moving beyond individual interventions. Linking his approach to attachment and trauma responses, he advocates facilitating attuned parenting. For many refugee families this work would involve helping parents get well so that they are able to contain the child's state rather than their own. This is hard work as many refugee children have been with mothers who are depressed, unconscious or missing. Some children might not be here with their parents and many parents are consumed by trauma or the need to settle.

Recovery is also facilitated by community. Where a larger community is fractured by war, smaller communities can be created, for example in theatre or "self-help" groups. In these contexts, there is a human connection that does not evoke shame or fear. Seeing immobilisation as being at the core of the trauma reaction, he says that we also aim for "releasing incomplete actions in a context of safety".

Theatre techniques are especially useful here and Dr van der Kolk has been actively involved in a youth theatre programme where young people become mobilised to work through their stories. Capoeira groups is one of the methods used at STARTTS to facilitate this mobilisation and community connection between young people.

Refugees have survived extreme stress and trauma at the individual, family and community levels. STARTTS approach has been to address each of these levels using methods that have a sound basis in theory and are endorsed by experts in the field of trauma work.

A respected researcher-clinician, Dr van der Kolk has provided us with both affirmation and a challenge to continue integrating various techniques in the process of therapeutic contact with refugee-survivors of torture and trauma. He states that Neurofeedback, massage, acupuncture, EMDR, dance, psychotherapy and community focussed interventions are at the frontier of trauma treatment.

In his presentation to an audience of 250, Dr van der Kolk challenged and entertained. Some clinicians wondered what they should be doing with their clients the next day but all felt affirmed and inspired.




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**Dr Bessel Van Der Kolk**