

Webinar

The impact of trauma on children's minds, brains and bodies

How to interrupt the trajectory from adverse childhood experiences (ACES) to long-term mental and physical ill-health, personal and societal misery



TRAUMA INFORMED UK SCHOOLS

CCMH THE CENTRE FOR CHILD MENTAL HEALTH

By Dr Margot Sunderland (full text of the presentation)

PART ONE

- **Trauma** is a response to any event/s encountered as an out of control, frightening experience that disconnect us from all sense of resourcefulness, safety, coping and/or love (Tara Brach, 2011)
- Trauma is not an event itself, but an emotional response to a painful and shocking event where there was no one there to help you with what was happening at the time (Margot Sunderland)

So what can go so wrong? Why is some parenting stress inducing not stress reducing?

Parents not enough space in their minds to be an emotional regulator /emotionally available for their child

- Depression
- Lack of support
- Their own ACES
- Too many people's needs of them
- Anxiety
- Unprocessed trauma /loss
- Alcohol/substance abuse
- Suffering from loss or bereavement
- Financial worries
- Domestic violence victim

So effective stress response systems not set up in the child's/teenager's brain

When emotion regulating systems are not effectively established in the brain...

I can't regulate my rage because no one helped me do that
 I can't regulate my anxiety because no one helped me do that
 I can't reflect on my feelings, because no one helped me do that
 I have no sense of self because no one helped me form that

The Change Process

if we are to heal traumatised troubled minds and bodies long term we must :

- Impact on brain structure
- Impact on brain biochemical systems
- Impact on body/physiology

Dr Eamon McCrory Reader in Developmental Psychopathology at University College London

THE ACE STUDY

(Adverse Childhood Experiences Study)

The ACE study is the biggest ever Public Health Study (17000 people) to show a direct link between adverse child experiences, and poor mental and physical health decades later and in some cases, early death.

Firstly, all schools and communities need to know about the key relationship between unresolved trauma (painful life experience that rocked belief in a safe world) and toxic stress

STRESS !!!

POSITIVE

Brief increases in heart rate, mild elevations in stress hormone levels.

TOLERABLE

Serious, temporary stress responses, buffered by supportive relationships.

TOXIC

Prolonged activation of stress response systems in the absence of protective relationships.

The Hyperarousal of Unprocessed Trauma is Awful

caused in part by a trigger happy amygdala:

known as over- active stress response system

-Minor stressors are experienced as major emergencies

Research shows that traumatised children experience the same over-activation in their amygdala as soldiers returning home from front line duty

(Professor Eamon McCrory University College London)

And yet we permanently exclude thousands of traumatised children a year (many of them because their trauma manifests in their behaviour).

It's not much better than the first world war when we shot soldiers suffering from PTSD.

**The psychological pain of toxic stress is so awful
So to alleviate my suffering the person engages in
health harming behaviours**

- Drinking
- Smoking
- Self harm
- Taking drugs
- Discharge through violence
- Bullying (making you feel my unbearable feelings of shame and powerlessness

**The Neurological Impact of Living with Toxic Stress
Damage to the Brain and Body**

Damage to:

- Neurochemical systems
- Neuroanatomy
- Endocrine system
- Immune system
- Autonomic nervous system

Type 2 Diabetes

Toxic stress interferes with insulin release

Heart attacks

Toxic stress causes inflammation

Cancer

Toxic stress turns off tumour suppressant genes

Adverse childhood experiences and risk of type 2 diabetes: A systematic review and meta-analysis. [Huang H1, Yan P1, Shan Z1, Chen S, Li M, Luo C1, Gao H, Hao L1, Liu L.](#) *Metabolism.* 2015 Nov;64(11):1408-18. Sep 2

Making a link between childhood physical abuse and cancer

Fuller-Thomson, E, Brennenstuhl S *Cancer.* 2009 Jul 15;115(14)

Stress, depression, the immune system, and cancer. Reiche EM, Nunes SO, Morimoto HK. *Lancet Oncol.* 2004; 5: 617-625.

No it's a message of hope: due to preventable suffering

PROTECTIVE FACTORS:

One trusted emotionally available adult before the age of 18

KEY MESSAGE

Research shows that One emotionally available adult before the age of 18 interrupts the progression from childhood adversity to learning difficulties, mental and physical ill-health... for many children this person will be a teacher.

Ian Wright~ Arsenal and England Captain, Sports Commentator

“We now understand how to interrupt the progression from early adversity to mental ill-health and early death”

(Nadine Burke Harris, TED, Feb 17, 2015)

And now a true story.....

Ian Wright (famous footballer) and Mark Johnson MBE Founder of User Voice. Both suffered massive childhood trauma. Both had severe behaviour problems at school. Ian's school caught him before he fell. Mark's school didn't. Ian went on to be one of the most famous footballers of all time. Mark went on to be an armed robber and homeless drug addict. It could have been so different if, like Ian Wright, Mark had been given an emotionally available adult in school ...

Ian Wright

Mark Johnson

Mark Johnson MBE

Founder of User Voice

had no Mr Pigden, no emotionally available adult at school

Regularly brutally beaten by his father who attempted on one occasion to burn him on the fire. His mother, a Jehovah's Witness said " I can only love you if you love my God" ...

Mark Johnson

Age 8 On glue and cider.

- At school, regularly punching children in the face.

Age 11

- Took heroin/crack.
- Had sex.

Teenage years

- Drug addiction then Borstal - violent disorder.

Age 20

- Prison for violent armed robbery to feed his habit

10 years devoted to heroin

Slept rough on the streets, was infested with lice,

Now Mark has an MBE and described in the press as Prince Charles' best friend. (Pride of Britain Award).

Set Up: "User Voice" (working in 30 prisons to establish prison councils for inmates to have a voice with the Governor) Worked with the Home office so now there is less restraint in Youth Offending Institutions and he's just got Pentonville Prison to give all their inmates a hot pudding every day (they haven't had one for 5 years) because the budget for food per prisoner per day is only 85pence.

By acknowledging ACES and giving children who have suffered massive trauma like Mark Johnson, an emotionally available adult, schools can do so much to prevent both societal and personal suffering

Population attributable risk (percentage of problems caused by adverse childhood experience (with no emotionally available adult as protective factor):

- Over half of all depression
- Half of all drug abuse
- Half of all domestic violence

hurt, shame, disappointment (Starr et al 2019)

Lisa R. Starr, Rachel Hershenberg, Zoey A. Shaw, Y. Irina Li, Angela C. Santee. *The perils of murky emotions: Emotion differentiation moderates the prospective relationship between naturalistic stress exposure and adolescent depression.. Emotion, 2019;*

Jess was doing really well at school until her parents split up and then she went 'from pain to violence' and was permanently excluded.

Jess has a trauma trigger when she is not allowed to help her friend Warren who has been taken to the police station for hitting a teacher. The trigger is that she could not help her brother when he was affected by watching her parents fighting.

Headteacher: Is this just another excuse not to engage in learning?

This question leads to a misconnect between the Headmaster and Jessica.

Headteacher: Is this just another excuse not to engage in learning?

Mental state talk: You just want to be with Warren right now. That's the only place you want to be. You want to be with Warren. You are so cross we are not letting you go to the police station. You so want to help him with the pain of what's happening to him You want to be with Warren...You just want to be with Warren.

Attuning with/accepting and empathising with Jessica's panic, anger and frustration (PACE)

- "When the [adult] expresses *his* response with a similar cadence and intensity, equally loud and focused, *but does not experience anger for the child*, the child is likely to feel understood and feel [less alone with her anger and that her anger is being understood]
- She is not likely to feel that her anger is being judged or that her anger is wrong or disrespectful.
- If the [adult] becomes defensive and annoyed in reaction to the child's anger, the anger is likely to intensify.
- If the [adult] remains calm and detached, the child is likely to feel alone with her anger, and her anger may intensify as well." (Baylin and Hughes 2016:119)

We can't help Jessica make sense of what has happened (including her trauma triggers) until we have calmed her down by meeting her in her feeling state (affect attunement/ mental state talk)

Some people worry that mental state talk with teenagers is patronising but the teenagers themselves never say this...!

Developmental Deficit with an overlay of trauma makes everything massively worse

How can an EAA positively impact on a child's physiology long-term?

- *Dr Eamon McCrory Reader in Developmental Psychopathology at University College London*

The long-term impact of the EAA on the child's physiology

Research shows that:

- Receiving skilled empathic listening over time develops good vagal tone.
- Practitioners particularly skilled in making accurate empathic statements impacted strongly on calming physiology.
- EAAs who were able to help the child to change the narrative of their trauma from one of shame to one of self-compassion and dignity developed good vagal tone.
- Children with severe challenging behaviour who saw a warm and compassionate EAA (in contrast to a cognitive approach) had far better HRV with improved ability to learn.

Refs *Petrocchi and Cheli 2019*

(*Kiema et al 2014*) *Gilbert, 2014, 2015a,b; Hermanton & Zuroff, 2016; Petrocchi & Couyoumdjian, 2016*) *Gilbert, 2015b*). (*Mather and Thayer (2018)*),. (*Matos et al., 2017*)

Just Listening:

Calms The Child's Body:

Impacting Positively On Physiology

Just listening (with acceptance not judgement) to **130,000** people talk about their painful childhood experiences reduced GP visits in this group in the following year by **35 percent** and emergency department visits by **11 percent**.

Felitti V and Anda R (2017) in The Hidden Epidemic: The Impact of Early Life Trauma on Health and Disease, 2008 ed Lanus R Cambridge University Press

PART THREE

MODEL TWO

The brain's key genetically ingrained emotional systems

All Mental Ill-health Is an Imbalance In These Systems (over-activation or under-activation)

These emotion systems deep in the limbic area of the brain are all huge hormonal forces driving many people to be breath-takingly creative, kind, passionate about making the world a better place, whilst others live a life marred by anxiety and depression and/or by destructive actions towards self or others, sometimes horrifically.

The systems were discovered by Professor Jaak Panksepp (Washington State University) over 40 years in a laboratory. He has been described as the next Darwin

Each system **has its own particular brain pathways and neurochemical profile**

THE CARE SYSTEM (opioids/oxytocin/dopamine) (when optimally activated)

Feeling of profound emotional wellbeing

Feeling all is well in my world

Calm, generosity and compassion

Panksepp and Biven (2012) The Archaeology of Mind

Neuroevolutionary Origins of Human Emotion: Neuroevolutionary Origins of Human

Emotions

Research shows that emotionally available adults in school can modify the child's RAGE, FEAR and GRIEF brain systems and also develop their pro-social neurochemical systems

CARE (attachment) SEEKING and PLAY

- **When opioids and oxytocin are optimally activated in the child's brain we do not want to fight and we don't feel anxious**
(*Anti-anxiety/ anti-aggression molecules*)

“Troubled children may not follow rules but they will follow a person. (Paul Dix, 2017)

and when they do there is no longer a behaviour problem

We then need to PROTECT strong attachments between children and school staff (so the attachment does not suddenly get ruptured due to change of year group or a Head who gets worried about the intensity of a child's attachment to a particular teacher....

Remarkable things can happen when emotionally available adults at school optimally activate the CARE system in high risk students

Research shows that a child or young person's attachment to a teacher is associated with higher grades, greater emotional regulation, social competence, willingness to take on challenges, and with lower levels of ADHD and delinquency. These effects were stronger for high-risk students.

Bergin C., & Bergin D. (2009). Attachment in the classroom. *Educational Psychology Review*, 21, 141-170.

Case study: Noah (age 9)

(over-active RAGE system, under-active PLAY SEEKING AND CARE systems)

Safe base team .

“Team Noah”

So Noah would go for ‘emotion re- fuelling’ with Mrs Brown or Mrs Green every day

Safe base team .

“Team Noah”

So Noah would go for ‘emotion re- fuelling’ with Mrs Brown or Mrs Green every day

From his attachment to Mrs Brown and Mrs Green, opioids and oxytocin were optimally activated in Noah's brain. (anti-aggression neurochemicals) so no longer a problem with aggression.

Research shows that children with insecure parent-child attachments who are able to develop a secure teacher-student relationship, do far better socially, emotionally, and academically than children who do not have an EAA at school

-O'Connor, E., & McCartney, K. (2007). *Examining teacher-child relationships and achievement as part of an ecological model of development. American Educational Research Journal*, 44(2), 340-369. Bergin and Bergin (op. cit)

Addressing Noah's unmet attachment needs through attachment play (right up to age 16: just make the games more motorically sophisticated

Verity (EAA) visited this highly anxious teenager regularly. Before knowing her, he could only calm himself down by taking cannabis all day long. His relationship to Verity optimally activated anti- anxiety neurochemicals (opioids and oxytocin) in his brain. As a result he no longer needed cannabis to calm down and he re- engaged with the social world

THE SEEKING SYSTEM (dopamine and opioids)

(when optimally activated)

- A super-efficient ‘get-up-and-go-get-it’ system.
- Passion for learning and exploring
- “Having an abundance of motivational and psychological energy for life” (Watt 2017)

Douglas F. Watt (2017): Reflections on the neuroscientific legacy of Jaak Douglas F. Watt (Neuropsychanalysis, 2017

THE PLAY SYSTEM (opioids)

(when optimally activated)

System of social joy

Early life: attachment play. Later : the ability to play with ideas/shared creative endeavour

Brings about new brain growth in parts of the brain damaged by traumatic stress

Panksepp and Biven (2012) The Archaeology of Mind

Neuroevolutionary Origins of Human Emotion: Neuroevolutionary Origins of Human Emotions

So TMHi schools think ‘neurochemically’

a) Offer repeated experiences that activate the brain's

pro-social systems CARE, SEEKING and PLAY

through relational interventions

b) Modify the RAGE, FEAR and GRIEF systems through relational, conversational and regulatory interventions

PART FOUR

MODEL THREE

Protect, Relate, Regulate and Reflect

PROTECT

- a whole school awareness of the vital need to provide the highest level of ‘safety cues’ for children on a daily basis and not simply an absence of danger

-a whole school awareness of the impact of ACEs and of toxic stress on learning, behaviour and well – being, mental and physical health, and how to use ‘**protective factors**’ to bring down toxic stress levels to tolerable.

Children whose brains and bodies are triggering toxic stress levels are not receptive to learn either socially or academically

Social Engagement Theory

The Science of Safety and Learning

We All Have Two Neuro-physiological Systems:

Social Engagement System:

When We Feel Safe

- Well-balanced autonomic nervous system (ANS)
- Optimal activation of pro-social chemical systems in the brain
- Opioids and oxytocin

Social Defence System:

When We Feel Threatened

- Over-active ANS
- High levels of stress hormones that block pro-social chemical systems

It's easy to know if a child is feeling psychologically safe or unsafe with you...

Social defence system:

- No eye contact,
- No smiling
- May turn away or become hostile with challenging behaviour.
- Cannot engage with you or with their learning .

Social engagement system:

- Eye contact,
- Smiling
- Can engage in learning

Maintaining Social Engagement

When Correcting A Child

“ How nice to be told in a kind way that I am doing something wrong “ (Asha Philips)

Some parents and school staff unwittingly trigger a child's social defence system. As a result the child will *“Shrink from the world or do battle with it”*
(John Bowlby: Founder of Attachment theory)

And then ...“We cannot be annoyed with children who will not allow themselves to be vulnerable. Rather, we should find ways to help them to experience greater psychological safety.

(Dan Hughes 2017: 20)

Social Defence :

Punitive Sanctions Without Connection, Repair and Reflect

Isolation rooms as places of punishment will trigger RAGE/ FEAR and/or PANIC/GRIEF systems in the child's brain

Impact of Trauma = Faulty Neuroception

- **The Significance of the Blank Face**

A Whole School commitment to RELATE to children with Social Engagement rather than Social Defence

RELATE

(PACE: Play/Acceptance/Curiosity/Empathy)

in the way all school staff relate to their children/teenagers

PACE is a way of relating to a child/teenager that supports them to feel so safe and socially engaged that they do not want to fight and they don't feel anxious.

ACCEPT involves accepting and acknowledging the child's/ teenager's troubled history

Remember the one page cover sheet summary on the file of vulnerable children /those with ACEs (Louise Bomber)

Experiences of

TRAUMA

LOSS

ATTACHMENT ISSUES

Parent's permission that the key people in the school involved in the emotional well being of the child/teenager should see this.

The Crisp in the Minibus

Empathy from the teacher who had read the one page cover sheet on Tommy file which said he had been beaten round the head by his step father

PACE

CURIOSITY

The boy who refused to go into the classroom

Recent life event: *Sebbie's Dad had left home and Mum had taken on a new boyfriend that Sebbie didn't know*

For a week, Sebbie age 7 had refused to go into his classroom. It had taken hours of staff time to manage him. Teachers called him *“attention seeking”*. They said *“If you are out of class you do your learning later”*.

But no one had ever sat down with Sebbie and said, *“ Will you help me to understand why you really don't want to go in the classroom Sebbie?”*

So Julie, a TIS practitioner asked just that. Sebbie didn't answer. So Julie drew some emotion clouds.

Julie: *Sebbie, will you tick any of these emotion clouds that describe your worries and cross out ones that are wrong, and then, if you like.. draw or write in the empty clouds*

What Sebbie did....

Having written that he was worried about someone at home, Sebbie said, *“My Mum, she isn't safe”*

Julie: *Help me understand why your Mum isn't safe.*

Sebbie: *A stranger might take my Mummy when I'm at school and I will never see her again.*

Julie: *Shall we phone your mum to see if she's OK ?*

They did. She was Ok, kind and reassuring. He was relieved.

Julie: *If you were now to go back to the classroom where would you feel the safest?*

Sebbie told her. He returned to the classroom and sat in the place that felt safe...

Protect, Relate, Regulate, Reflect

REGULATE

calm bodies, minds and brains

Ensuring that the school actively supports the triggering of oxytocin (anti-stress chemical) in children's brains through a nurturing environment

- Warm lights
- Colour
- Sensory richness
- Music
- Lovely Smells
-
- Sofas/soft furnishing

Research: Uvnas-Moberg, K. (2011) *The Oxytocin Factor: Tapping the Hormone of Calm, Love and Healing* Da Capo Press, Cambridge MA

REFLECT

The healing power of talking about feelings within the context of a trusted relationship and making sense of painful life experience

TMHi practitioners are trained to facilitate confidential structured, reflective listening groups for staff and pupils

REFLECT means

Helping children to change what they feel and believe about themselves; editing the story they have told themselves about their lives

Here is the psychoeducation that the practitioner used to accompany her drawings (the two of them making clay figures whilst she said these things over time

- Little kids often think that when bad things happen it's their fault.
- Little kids (you were only 3) don't know the difference between a box of toys and a box of matches and no one helped you know the difference.
- So you think you failed the grownups but actually the grownups failed you
- You didn't know how dangerous matches are. You didn't know that matches can cause so much harm
- Sometimes grown-ups burn houses down because they leave a cigarette alight. They didn't mean to. Just like you. You didn't mean to either. It was an accident
- After the house burnt down, Mummy sent you away because she was angry and maybe you are angry because Mummy sent you away.

Light bulb moment

- **"So it wasn't because I was evil ! It was because I was three? "**

What Does it Mean to be a Trauma and Mental Health Informed School or organisation

Being a Trauma and Mental Health Informed School isn't a bolt-on, an intervention or something that a few people do. It's a culture. It's an approach. It's for everyone. From gate supervisor and teacher to lunchtime staff, we've all embraced this approach and have equipped staff with the tools to enable them to respond to every child's needs and to nurture each other in the process.

James Hitchens, Head of school Penryn Primary Academy Cornwall

Copyright M Sunderland 2021

To learn more about how to become the most effective emotionally available adult see another of our webinars:

