

Responding to Serious Case Reviews using soft and non-technical communication skills and the science of Toxic Stress and Adverse Childhood Experiences (ACEs)

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Conflicts of interest:

Dr Sarah Temple and Antoinette Davey are both Directors of the social enterprise EHCAP Ltd (*innovative solutions for Education, Health, Care and Prison services*) www.ehcap.co.uk

18 December 2019

Introduction

This continuing professional development paper will bring valuable resources to colleagues working with children and families who have experienced adversity across Health, Care and Policing services by providing access to an online evidence based and actionable **trauma-informed psycho education approach** known as Mindful Emotion Coaching and Adverse Childhood Experience awareness (MACE). The approach can be used to:

- improve professional's wellbeing and functionality through developing skills and capabilities in insight, emotion intelligence and self care
- improve communication between professionals across multiagencies
- further enable a person centred approach to working with children and families
- improve outcomes for children and families

By enabling conversations about the science of stress and offering psycho education tools that build skills in those areas of brain function most likely to be affected by exposure to toxic stress, we can create an environment where professionals develop

insight into their own emotional reactivity particularly in highly stressful situations where they are working with children and families who have experienced significant intergenerational adversity.

www.mindfulemotioncoaching.co.uk

Context setting

National and Local Serious Case Reviews following the death of Victoria Climbié in February 2000 have found failings in how professionals communicate and work together across services to safeguard children and young people. The connection between parents who have experienced trauma or adversity and the risk of their children suffering neglect and significant emotional harm is well evidenced. The MACE approach could be one of the catalysts for real and sustained change, providing a break in the cycle of intergenerational adversity. Recent case reviews have highlighted the importance of recognition of the impact of Adverse Childhood Experiences (ACEs) on children ([NSPCC, 2019](http://www.nspcc.org.uk))*.

EHCAP has worked with Public Health, Somerset County Council since 2014. In 2019 EHCAP trained 12 MACE facilitators in the Essex Child and Family Wellbeing Service and some of the Safeguarding Specialist Nurses are now using this model with Health Visitors and School Nurses in their safeguarding supervision sessions. (www.cultureofkindness.co.uk) . Between April and September of 2019, Dr Sarah Temple was employed for six months as a Named GP in Hampshire. www.emotioncoachinghampshire.co.uk

Brief summary of evidence base for this approach

Shoba Manro Holly (social worker) and Dr Sarah Temple (GP) first started to put the MACE approach together in 2010, basing their thinking on Professor Eileen Munro's Review of Child Protection (1), the anticipated changes to Working Together statutory guidelines and the SCIE (Social Care Institute of Excellence) document Think Child, Think Parent, Think Family (2)

The first major ACE study (Anda and Felitti 1998) (6) examined relations between the number of ACEs reported by more than 17,000 adults in the USA and their current health. It found that the more ACE types that individuals reported, the greater the risks of their health-harming behaviours (eg smoking, sexual risk taking) and both infectious and non- communicable disease. 16% of participants reported having four or more ACEs. An ACE score of four or more carried a 1.6x greater odds of reporting diabetes in adulthood compared with adults with a score of zero, 1.6 x likelihood of severe obesity and 2.2 x likelihood of Ischaemic Heart Disease, 4.6 x greater odds of reporting depressed mood in the last year, 4.7 x greater odds of ever having used illicit drugs, 10.3 x greater odds of ever having injected drugs and 12.2 x greater odds of ever having attempted suicide.

Professor Mark Bellis (7) has researched the biological effects of childhood trauma and published a paper in 2014 showing that early exposure to adversity or traumatic experiences can cause an over activity of the stress response and this can increase

risk for learning and behavioural difficulties as well as increasing risk of health difficulties in adulthood such as heart disease and stroke. In The Lancet, 2017 Bellis and Hughes published an international systematic review and meta analysis of risk estimates for adults with at least four ACEs compared with those with none. (8) Bellis was a contributing author to 'Responding to Adverse Childhood Experiences (9) 2019 an evidence review of interventions to prevent and address adversity across the life course. The 7 cross cutting themes on page 26 are of particular relevance.

In 2018 a Commons Select Committee, UK Parliament (10) published evidence relating adversity and trauma suffered in childhood to a range of problems in later life.

Development of the 'response to ACEs' has included integration of resources

- from Center on the Developing Child (CDC), Harvard University(3) The CDC has synthesised decades of quality research into actionable formats including downloadable infographics and video clips that are readily accessible online.
- created by the neuroscientist Daniel J. Siegel (4) including use of a simplified metaphor for emotion regulation known as The Hand Model and the workbook to 'The Whole Brain Child', co-authored by Dr Tina Bryson, paediatric and adolescent psychotherapist, parenting consultant, and the director of parenting education and development for the Siegel's Mindsight Institute.
- created by psychologist Professor John Gottman, Gottman Institute including Emotion Coaching (5) described in 'The heart of parenting: how to raise an emotionally intelligent child' Gottman 1997

Summary of key learning points for practice

MACE is based on three scientific concepts to Improve Outcomes for Children and Families as evidenced by Center on the Developing Child, Harvard University. The evidence base is explained in detail through links at www.emotionintelligence.co.uk .

The MACE approach

- develops an environment of responsive relationships with 'serve and return' interactions with
 - Professor John Gottman's Emotion Coaching research
 - mindful activities

[The Hand Model](#) -an accessible metaphor for emotion regulation created by Professor Daniel J Siegel, The Whole Brain Child, pages 62-63. Mind Your Brain © Inc 2015.

The part of the brain that governs emotion is represented by the thumb and acts like an accelerator. The thinking part of the brain acts as a brake on emotions and is represented by the finger tips. When the thumb is 'reactive' and the fingers pushed up we have 'Flipped our Lid'. When the thumb is calm and the fist is closed (representing motorways of connections between different areas of the brain) we are responsive. This is when we make our best decisions. When our lid is down and we are interacting with others who also have their lid down we make our best collective decisions and choices.

We can learn to calm the reactivity of our brain through emotion coaching techniques and mindful exercises. This is also referred to as Vagal Tone. The vagus nerve travels from the brain stem to key organs in the body, doing things like lowering heart rate and breathing rate and is activated by stimulation of the pre frontal cortex – for example by naming the experienced emotion.

www.thehandmodel.co.uk

- o reduces sources of stress with
 - o education about positive/ tolerable/ toxic stress including the effects of toxic stress in pregnancy and early childhood on stress responses and emotion regulation
 - o mindful activities
 - o multiagency innovation



Toxic Stress

[Professor Jack Shonkoff](#), **Center on the Developing Child, Harvard University** talks about the biology of stress and the effects of toxic stress on human development particularly during pregnancy and the first two years of life.

Positive Stress response is a normal and essential part of healthy development, characterised by brief increases in heart rate and mild elevations in hormone levels.

Tolerable stress response activates the body's alert systems to a greater degree as a result of more severe, longer lasting difficulties, such as the loss of a loved one, a natural disaster, or a frightening injury. If the activation is time limited and buffered by relationships with adults who help the child adapt, the brain and other organs recover from what might otherwise be damaging effects.

Toxic stress response can occur when a child experiences strong, frequent, and / or prolonged adversity- such as physical or emotional abuse, chronic neglect, caregiver substance abuse or mental illness, exposure to violence, and/ or the accumulated burdens of family economic hardship- without adequate adult support. **This kind of prolonged activation of the stress response systems can disrupt the development of brain architecture leading to difficulties with emotion regulation and executive function**, affect immune systems, hormonal systems and how our DNA is read and expressed. In other words it changes how our cells work together.

How do ACEs relate to toxic stress?

Experiencing many ACEs, as well as things like racism and community violence, without supportive adults can cause **toxic stress**. This excessive activation of the stress response system can lead to long term wear and tear on the body and brain. ACEs affect people at all income and social levels, and can have serious and costly impact across the lifespan.

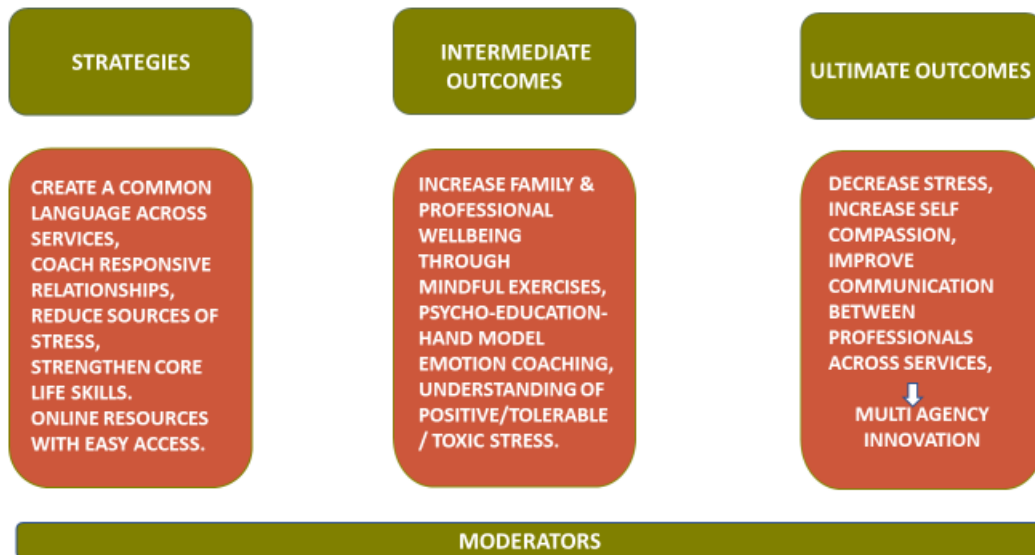
No one who has experienced significant adversity is irreparably damaged though we need to acknowledge trauma's effects on lives. By reducing sources of stress, providing core life skills needed to adapt and thrive we can prevent and counteract lasting harm. <https://developingchild.harvard.edu/ACEs>

Lessons for multi-disciplinary practice

- develop a theory of change that is practical and workable



Theory of Change



- Introduce a common language across Partner Agencies using the MACE approach by networking, providing access to quality online resources and pairs of half day MACE workshops.
- Identify moderators and take care to manage them as they are crucial to the success of the model and vary across different services and teams. An example of a moderator is the recruitment process for learners at workshops -professionals with high levels of unprocessed experienced childhood adversity in their own lives are likely to find this approach emotionally challenging.
- Make sure you have high quality, accessible training materials and a robust evaluation process.



“Understanding the mechanics behind how we communicate and the influence of emotions and contextual environmental issues (such as stress) on behaviour were key learning outcomes for all professionals. All professionals talked about the impact of toxic stress. It also made them more aware of the importance of being emotionally literate and how that could impact on their work”. Police, Hampshire Project 2019
www.emotioncoachinghampshire.co.uk

Test your knowledge

1. What are the names of the researchers who ran the seminal 1998 ACEs study
 - a. Anda and Felitti
 - b. Bellis and Hughes
 - c. Bryson and Siegel
 - d. Gottman and Gottman

2. Which UK Public Health team is collaborating with Policing Services to increase awareness of ACEs?
 - a. England
 - b. Scotland
 - c. Wales
 - d. Northern Ireland

3. What are the three types of stress described by Center on the Developing Child
 - a. Mild, moderate, severe
 - b. Positive, tolerable, toxic
 - c. Reactive, physiological, inherited

4. Which three of these are core to the MACE approach?
 - a. Create a common language across services
 - b. Coach responsive relationships
 - c. Reduce sources of stress
 - d. Use of an ACE questionnaire in clinical settings

Reflection

Reflecting on what you have read here, are you able to think of ways you could incorporate the MACE resources into your personal life and work? Thinking about Child Protection Medicals and Child Protection Conferences you have been involved with, can you think of a situation where referring to the neuroscience of stress might support improved communication between professionals and families and between professionals across services? Can you think how ‘The Hand Model’ could be used by frontline staff directly with families to improve communication between parents and children?

References

A full list of references is available online at www.emotionintelligence.co.uk
Resources are available through www.mindfulemotioncoaching.co.uk

Case studies

1. [Professor Eileen Munro's Review of Child Protection](#) Final Report
Department for Education 2011
2. [SCIE \(Social Care Institute of Excellence\) Accredited Guide 30 Think Child, Think Parent, Think Family](#). Updated in 2011
3. [Center on the Developing Child at Harvard University \(2017\). Three Principles to Improve Outcomes for children and families](#)
<http://www.developingchild.harvard.edu>
4. [Thriving with Uncertainty - Opening the Mind and Cultivating Inner Well-Being Through Contemplative and Creative Mindfulness](#) Wiley Blackwell Handbook of Mindfulness, Chapter 2, Siegel and Siegel, 2014 ISBN:9781118294895 |
5. Parental Meta-Emotion Philosophy and the Emotional Life of Families: Theoretical Models and Preliminary Data, Gottman and Katz, Journal of Family Psychology 1996, Vol10, No3, 243-268
6. Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults- [The Adverse Childhood Experiences \(ACE\) Study Anda and Felitti 1998](#) Am J Prev Med 1998 May;14(4):245-58
7. [The biological effects of Childhood Trauma](#) - Mark Bellis 2014. Child Adolescent Psychiatry Clin N Am. 2014 Apr ; 23(2): 185-222
8. [The effects of multiple adverse childhood experiences on health](#) Professor Mark Bellis et al., Lancet Public Health 2017;2:e356-66
9. Lemma, Davies, Ford, Hughes, Homolova, Gray, Richardson (2019) [Responding to Adverse Childhood Experiences- An evidence review of interventions to prevent and address adversity across the life course](#) Public Health Wales, Cardiff and Bangor University, Wrexham, ISBN 978-1-78986-035-1
10. [UK Parliament 2018, Commons Select Committee](#) the current state of evidence relating adversity and trauma suffered in childhood to a range of problems in later life, as well as the effectiveness of measures that aim to prevent adverse childhood experiences or mitigate their linked negative outcomes.

Footnote

Answers to MCQ

1.a 2.c 3.b 4.a,b,c