

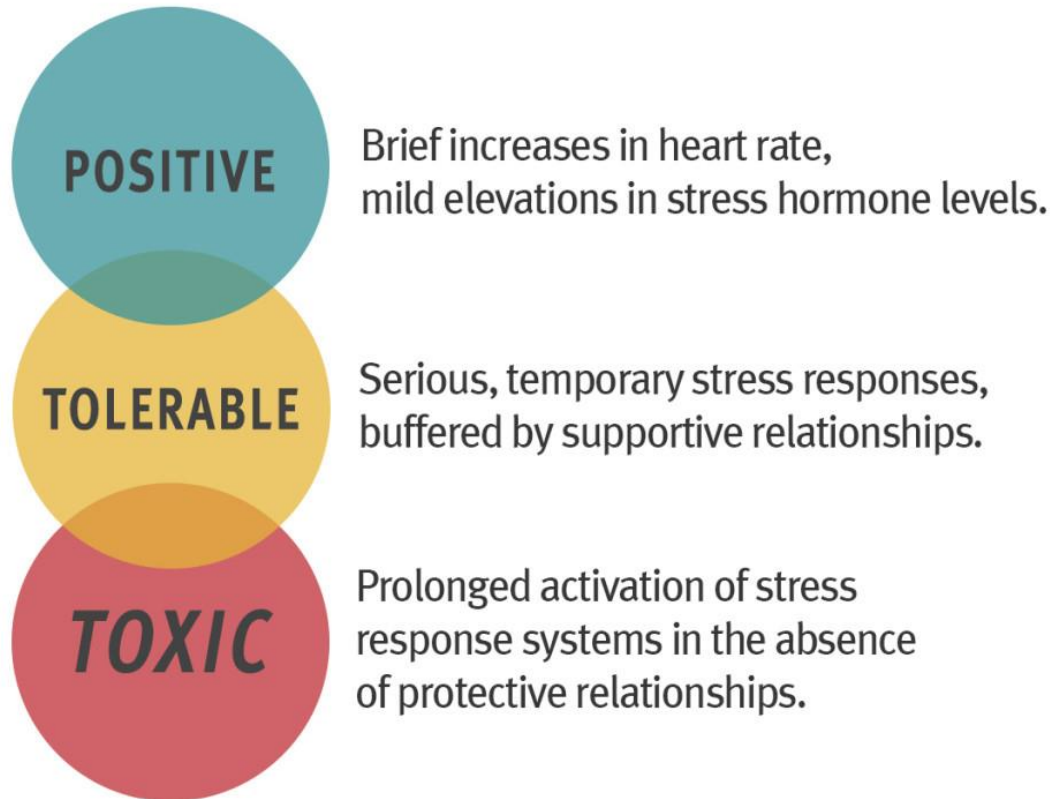
Physical Health Needs in Trauma Populations

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Let's think about stress



What happens to our physical health and behaviour when we are stressed?

What happened to us during the COVID-19 lockdowns?

Increased drinking, substance use, poorer diets, poor sleep, reduced activity [Ingram, 2020; Arora & Grey, 2020]

Adverse Childhood Experiences

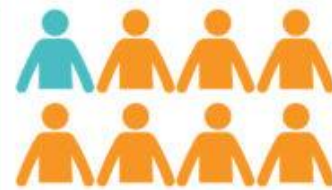
Traumatic events that can have negative, lasting effects on health and well-being.



People with 6+ ACEs can die

20 yrs

earlier than those who have none.



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4 or more ACEs

3x the levels of lung disease and adult smoking



11x the level of intravenous drug abuse



14x the number of suicide attempts



4x as likely to have begun intercourse by age 15



4.5x more likely to develop depression



2x the level of liver disease

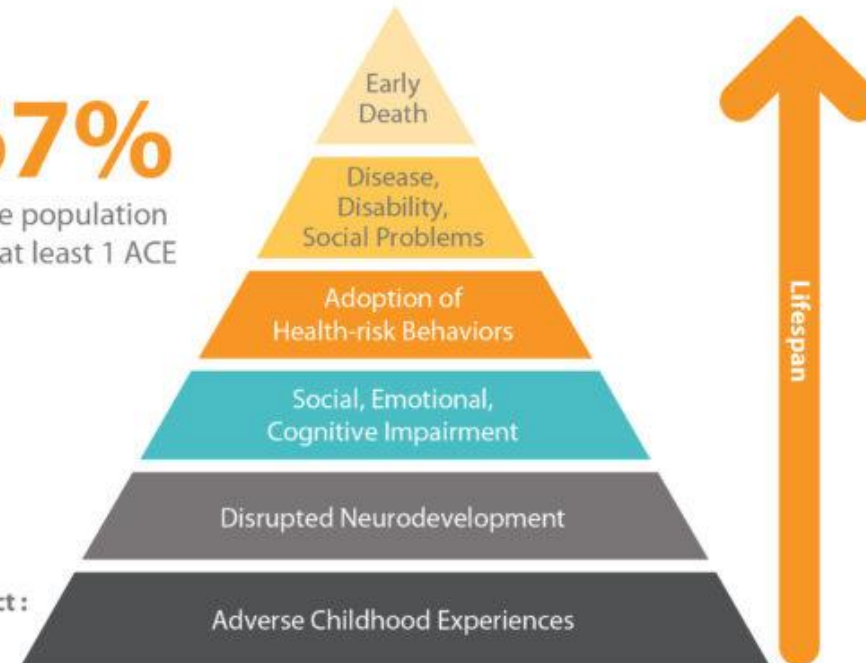


“ Adverse childhood experiences are the single greatest unaddressed public health threat facing our nation today. ”

Dr. Robert Block, the former President of the American Academy of Pediatrics

67%

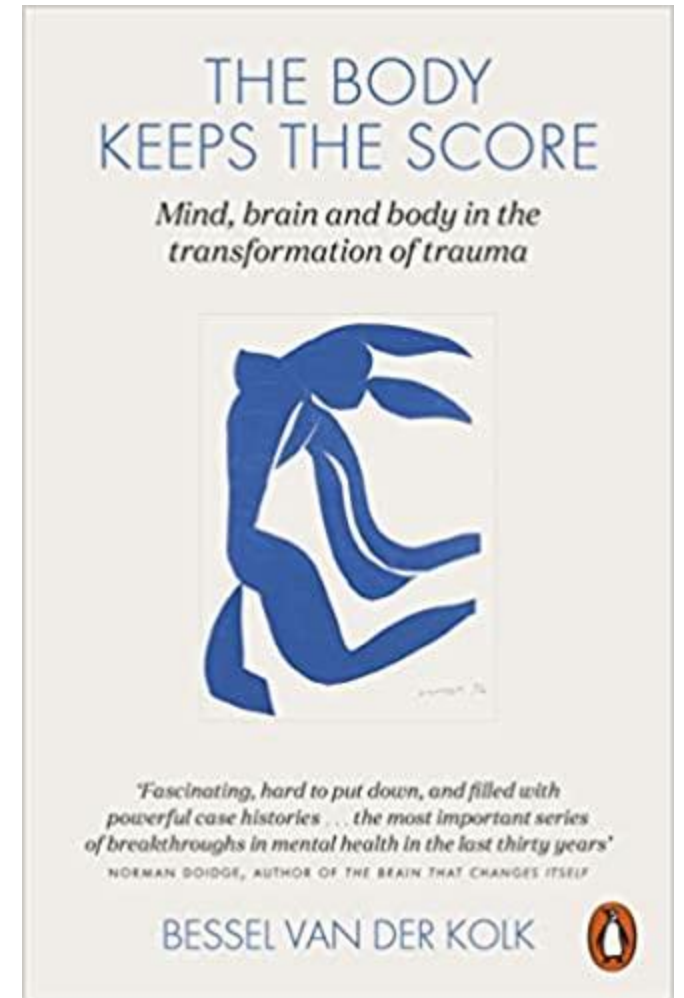
of the population have at least 1 ACE



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Talk outline

1. The physiological cost of psychological trauma
2. Coping strategies & their consequences
3. Barriers to accessing healthcare





1. The physiological cost of psychological trauma: Identified comorbidities of PTSD

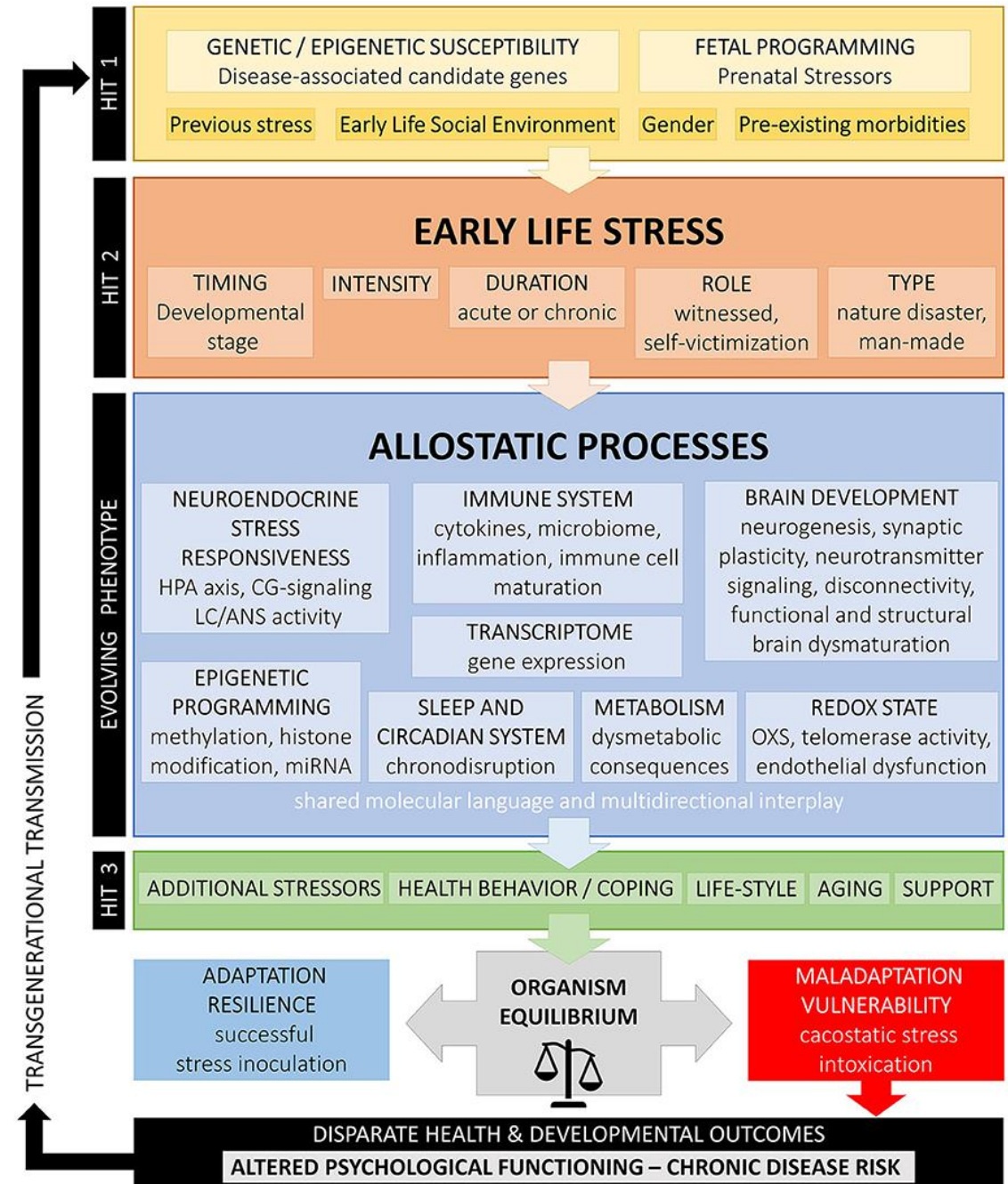
- Chronic pain [Sachs-Ericsson et al., 2007; Pacella et al., 2013]
- Chronic fatigue [Afari et al, 2014]
- Coronary health disorders [Pacella et al., 2013]
- Gastro-intestinal health disorders [Pacella et al., 2013; Afari et al., 2014]
- Diabetes [Roberts et al, 2015; Vancampfort et al., 2016]
- Obesity [van den Berk-Clark et al., 2018]
- Lung disease [Goodwin et al, 2004]
- Automimmune disorders [Goodwin et al., 2004]
- Multi-morbidity [Jacob et al., 2018]
- Substance use disorder [Leza et al., 2021; Lewis et al., 2018]
- Subjective physical health [Pacella et al., 2013]

1. The physiological cost of psychological trauma

Exposure to traumatic stress and the development of C/PTSD can lead to changes in the major stress response systems (HPA Axis & SNS) which may underly some disease trajectories [Morris et al., 2016]

Meta-analytic studies show that PTSD populations have:

- Increased heart rate [Pole, 2007]
- Increased heart rate reactivity [Tan et al., 2011]
- Higher blood pressure [Buckley & Kaloupek, 2001]
- Higher pro-inflammatory cytokines [Yang et al., 2020]



What links trauma & health problems?

Emerging evidence from clinical and population-based populations highlights the potential role of emotional dysregulation

ORIGINAL ARTICLE

Posttraumatic Stress Disorder and Persistent Somatic Symptoms During the COVID-19 Pandemic: The Role of Sense of Threat

Sally Jowett, DClrPsy, Mark Shevlin, DPhil, Philip Hyland, PhD, and Thanos Karatzias, PhD

ABSTRACT

Objective: Persistent somatic symptoms, such as pain and fatigue, have been referred to as somatization. Somatization is commonly associated with histories of trauma and posttraumatic stress disorder (PTSD). Although previous research has demonstrated that PTSD can predict somatic problems, there has been no examination of this at the level of PTSD symptom clusters and multidimensional assessment of somatic symptoms. We examined the association between the three *International Classification of Disease (11th Edition)* PTSD symptom clusters (reexperiencing in the here and now, avoidance, and sense of threat), measured in relation to the COVID-19 pandemic in the stressor, and somatic symptoms while statistically adjusting for confounding variables.

Methods: Participants were a nationally representative sample of 1041 adults from the general population of the Republic of Ireland. Physical health problems across the domains of pain, gastrointestinal, cardiopulmonary, and fatigue were assessed by the Patient Health Questionnaire, and PTSD symptoms were assessed using the International Trauma Questionnaire.

Results: Sense of threat was associated with the presence of pain ($\beta = 0.254$), fatigue ($\beta = 0.332$), gastrointestinal ($\beta = 0.234$), and cardiovascular symptoms ($\beta = 0.239$). Avoidance was associated with pain ($\beta = 0.347$). Reexperiencing was not associated with any physical health variable.

Conclusions: In the context of COVID-19, the sense of threat symptoms in PTSD is most strongly related to somatic problems. Findings suggest that interventions addressing sense of threat symptoms might provide relief from somatization.

Key words: PTSD, somatization, Hyperarousal, pandemic, trauma.

INTRODUCTION

The experience of psychological distress in the form of persistent physical symptoms without a known organic cause is known as somatization. Somatization can cause significant impairment to quality of life leading to repeated presentations to primary care settings (1). The course of illness is often associated with a prolonged history of unfruitful medical investigations and treatments followed by a referral to psychiatric services. Comorbid psychological disorders to somatization are a contentious issue; many researchers identify that somatization disorders are strongly but not exclusively linked to anxiety and depression (2), whereas others question the assumption that one causes the other and the appropriateness of applying this conceptualization across languages and cultures (3). In an effort to increase the clinical utility of a diagnosis and reflect clinicians away from causation and toward the distress of the experience, the *International Classification of Disease (11th Edition) (ICD-11)* redefined somatization problems as a bodily distress disorder (4).

Somatization has been repeatedly associated with a wide range of psychological disorders such as posttraumatic stress disorder (PTSD) (2,5). There are three criteria for a diagnosis of ICD-11

PTSD: reexperiencing of the trauma in the here and now, avoidance of reminders of the trauma, and a sense of current threat (4). PTSD has been strongly associated with poor physical health and the presence of medical conditions (5), which is not surprising considering the disturbing impact of PTSD on sleep (6), and the self-medicating use of alcohol and substances to suppress flashbacks and to cope with interpersonal contact (7). A large meta-analysis found that individuals with PTSD were much more likely to be obese, to have poorer diets, to smoke, and to exercise less than the general population (8). The impact of trauma and PTSD on physical health can be pervasive and complex, and it is important therefore to explore the relationship between PTSD and somatization.

GH = composite G index; HPA = hypothalamic-pituitary-adrenal; ICD-11 = *International Classification of Disease (11th Edition)*; IQ = *International Trauma Questionnaire*; PQ = *Patient Health Questionnaire*; PTSD = *post-traumatic stress disorder*; RMSEA = root mean square error of approximation; RMSE = *root mean square error*; TI = *Tucker-Lewis index*.

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Emotion Regulation Mediates the Relationship Between ACES and Physical and Mental Health

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Objective: Adverse Childhood Experiences (ACEs) have consistently been associated with a range of negative psychological and physical outcomes in adulthood. Despite the strength of this association, no studies to date have investigated psychological processes that might underlie this relationship. The current study evaluated emotion regulation as a potential mediator between ACEs and three outcomes: PTSD symptoms, depression and poor physical health, all of which are frequently co-occurring among women with ACEs. **Method:** Mediation analyses were conducted with baseline data from a sample of 290 women enrolled in a clinical trial for PTSD. Emotion regulation was assessed with the *Difficulties in Emotional Regulation Scale (DERS)*. PTSD with the *Posttraumatic Stress Disorder Checklist for DSM-5 (PCL-5)*, depression with the *Brief Symptom Inventory Depression subscale (BSI-D)* and physical health with a shortened version of *Medical Outcomes Study Short Form (SF-8)*. **Results:** Emotion regulation significantly mediated the relationship between ACEs and all three outcomes. The estimates of the standardized indirect effects of ACEs on the health outcomes as mediated through DERS scores were as follows: PTSD $\beta = 0.1$, $p < .001$; depression $\beta = 0.16$, $p < .001$; physical health $\beta = 0.07$, $p = .002$. **Conclusions:** Interventions that focus on improving emotion regulation skills might provide an efficient "transdiagnostic" treatment strategy for both psychological and physical health problems. The study successfully tested a mediational model that identified a common pathway influencing both mental and physical health symptoms.

What might we see clinically?

- Poor sleep
- Agitation
- Health-related coping behaviours
- Lack of trust with services
- Fatigue of re-telling their history
- Reduced concentration
- Difficulty carrying out between session tasks
- CNAs/DNAs/Dropout [Alpert et al., 2020]
- Reduced activity [Vancampfort et al., 2017]

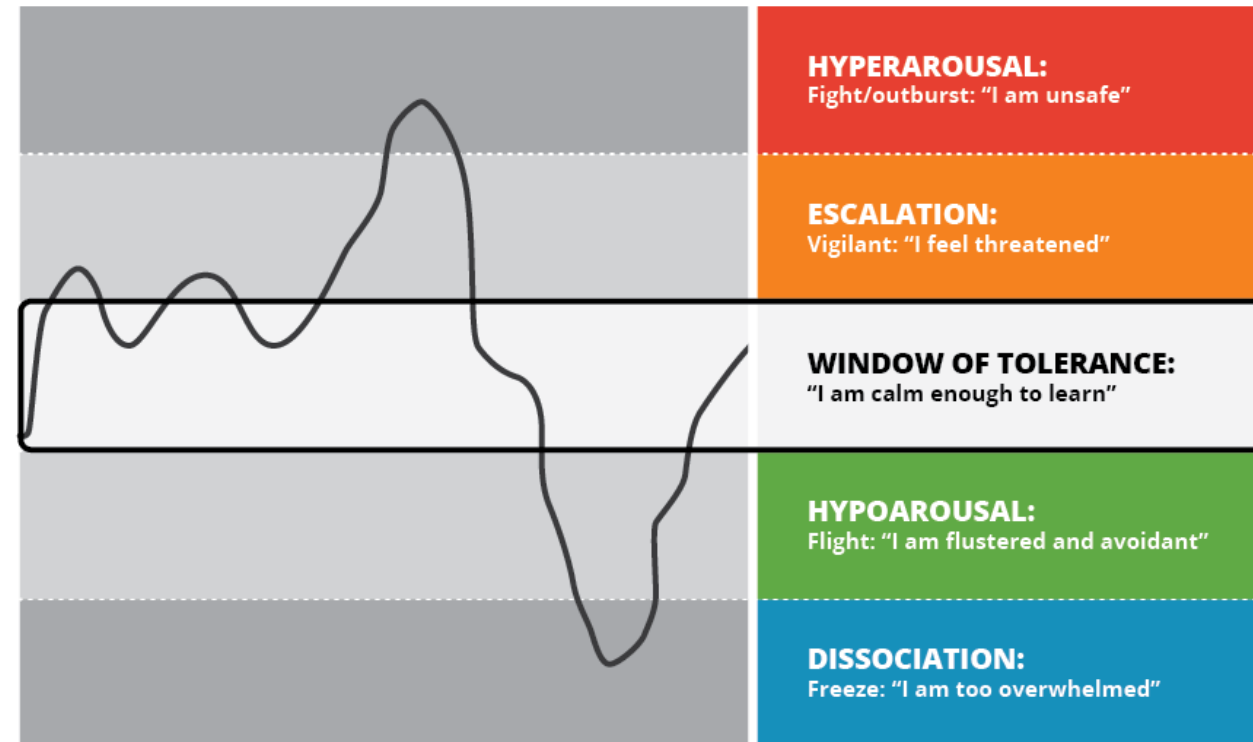


2. Coping strategies & their consequences

- People cope with the impact of trauma in the way they know works.
- Emotional regulation is **a learned skill**
- Many people have not had the opportunity to learn healthy coping strategies for their emotions
- Meta-analytic studies have shown that populations with PTSD have increased rates of:
 - Smoking [Kearns et al., 2017]
 - Over/under eating
 - Self-harm/suicidal behaviour
 - Substance use [alcohol, illegal & prescription drugs, caffeine]
 - Poorer physical fitness [vancampfort et al., 2017]
 - Risky sexual behaviour
 - Physical aggression
- These may all be ways of people attempting to regulate their emotions

What helps?

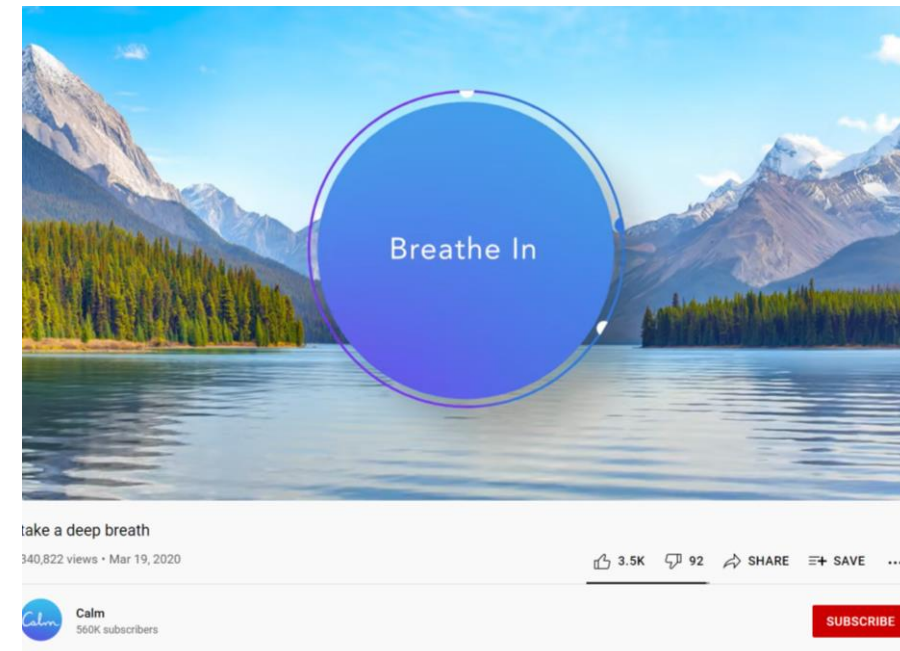
- Trauma work: stabilisation, processing & reintegration
- Formulate difficulties and problem-solve barriers
 - Time of day, quiet areas, online classes, decaf swaps
 - Share the dilemma of what to address first
- When people are physically in a state of high stress
 - Go slowly, one message at a time
 - Encourage written summaries & bridge sessions
 - Normalise difficulty attending
 - Consider negative self-concept
 - Be flexible where possible
 - MDT engagement for physical needs
- Link into MDT & community health support resources



Outside of sessions

- Lots of tools out there!
- Apps to support sleep work, mood trackers, guided breathing/mindfulness, self-harm.
- NHS & community resources
- Develop alternative coping strategies that align to their goals
- Recovery is not linear

Sleepio



3. Barriers to healthcare

Consider all of the steps involved to get an appointment with your GP

- Calling a stranger, scheduling in advance, travelling on public transport, being in a busy waiting room, entering a confined room with a stranger, little choice of who, the vulnerability of being physically examined, or risk of being asked, trusting that someone will hear you and help you with your problem, belief that you can express yourself...

What's that like for someone affected by trauma?

How do services respond when people cancel or don't show up?

Barriers to healthcare

Healthcare avoidance [Selwyn et al., 2021]

It can take a long time for people to seek help

It can take a long time for people to get evidence-based treatment after they've asked for help

We often need to tell our stories to several professionals many times

Intimate procedures, or the possibility of them, can be extremely challenging for people affected by trauma

The practicality of scheduling appointments

Advocating to improve your well-being

Trauma-Informed Care

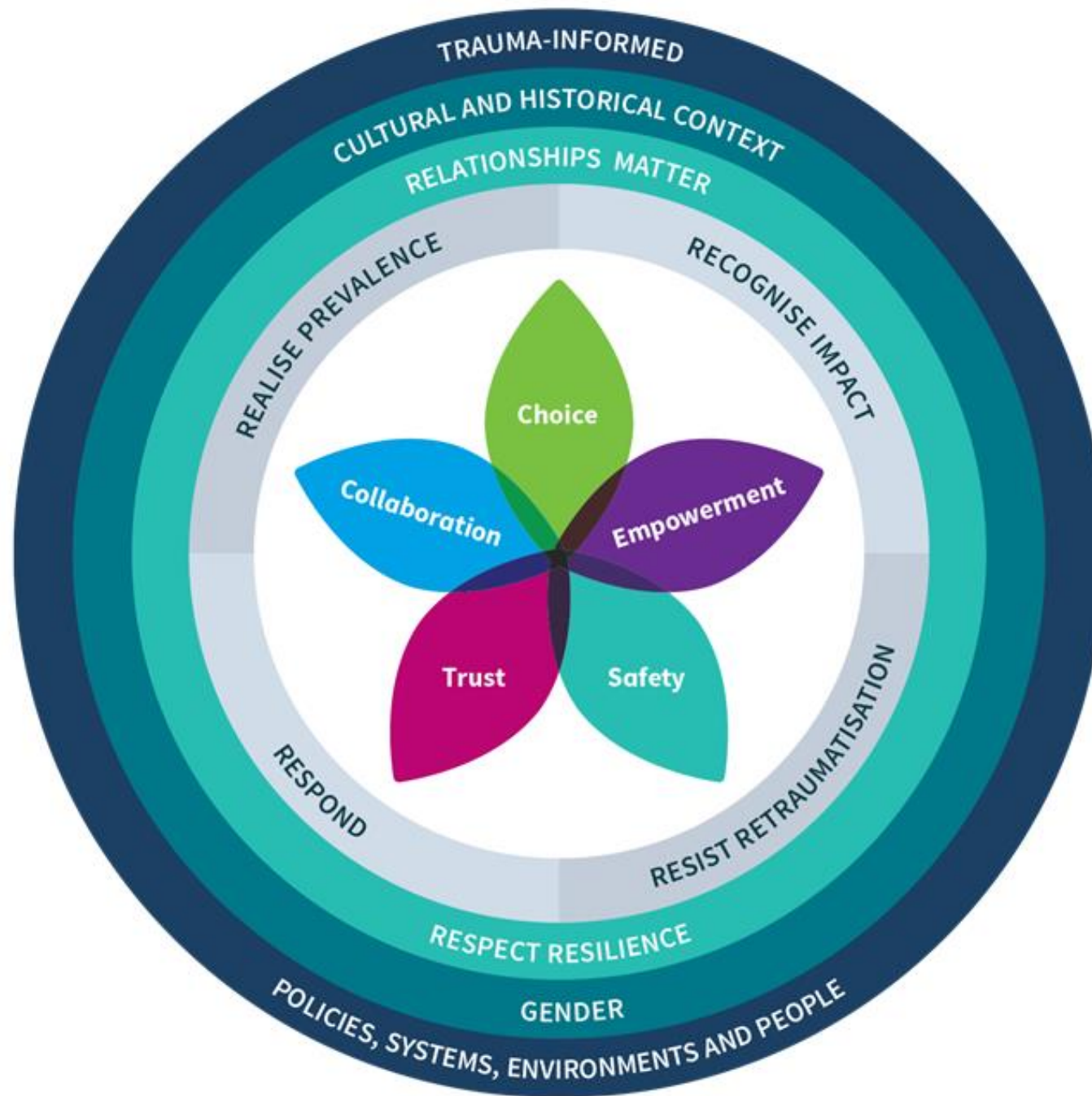
Recognises the impact of trauma & responds in a way that reduces barriers & supports recovery.

We don't always know if someone is affected by trauma, or by how much. Offering **trauma-informed care** to everyone we meet can:

- Reduce barriers to care and do no further harm
- Provide a new experience of relationships
- Improve life chances & health outcomes

It's a whole system approach.





Summary

1. Physical health needs are increased in people affected by trauma – both stress response systems and coping strategies.
2. The impact is unique
3. Trauma can make accessing much needed healthcare & other life opportunities very difficult
4. Clinicians can support people by recognising the impact, supporting emotional regulation where appropriate, destigmatising & facilitating trauma-informed care across their services and networks.

Thank you!



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References

- Afari, N., Ahumada, S. M., Wright, L. J., Mostoufi, S., Golnari, G., Reis, V., & Cuneo, J. G. (2014). Psychological trauma and functional somatic syndromes: a systematic review and meta-analysis. *Psychosomatic medicine*, 76(1), 2
- Alpert, E., Hayes, A. M., Barnes, J. B., & Sloan, D. M. (2020). Predictors of dropout in cognitive processing therapy for PTSD: An examination of trauma narrative content. *Behavior Therapy*, 51(5), 774-788.
- Arora, T., & Grey, I. (2020). Health behaviour changes during COVID-19 and the potential consequences: A mini-review. *Journal of Health Psychology*, 25(9), 1155-1163.
- Buckley, T. C., & Kaloupek, D. G. (2001). A meta-analytic examination of basal cardiovascular activity in posttraumatic stress disorder. *Psychosomatic medicine*, 63(4), 585-594.
- Goodwin, R. D., & Stein, M. B. (2004). Association between childhood trauma and physical disorders among adults in the United States. *Psychological medicine*, 34(3), 509-520.
- Ingram, J., Maciejewski, G., & Hand, C. J. (2020). Changes in diet, sleep, and physical activity are associated with differences in negative mood during COVID-19 lockdown. *Frontiers in psychology*, 11, 2328.
- Jacob, L., Haro, J. M., & Koyanagi, A. (2018). Post-traumatic stress symptoms are associated with physical multimorbidity: Findings from the Adult Psychiatric Morbidity Survey 2007. *Journal of affective disorders*, 232, 385-392.
- Johnson, A. Riley, D. Granger, J. RiisThe science of early life toxic stress for pediatric practice and advocacy *Pediatrics*, 131 (2013), pp. 319-327
- Kearns (2017). Posttraumatic stress disorder and cigarette smoking: A systematic review
- Leza, L., Siria, S., López-Goñi, J. J., & Fernandez-Montalvo, J. (2021). Adverse childhood experiences (ACEs) and substance use disorder (SUD): a scoping review. *Drug and alcohol dependence*, 108563.
- Morris et al., (2016). Cortisol, heart rate, and blood pressure as early markers of PTSD risk: A systematic review and meta-analysis

Pacella, M. L., Hruska, B., & Delahanty, D. L. (2013). The physical health consequences of PTSD and PTSD symptoms: a meta-analytic review. *Journal of anxiety disorders*, 27(1), 33-46.

Pietrzak, R. H., Goldstein, R. B., Southwick, S. M., & Grant, B. F. (2012). Physical health conditions associated with posttraumatic stress disorder in US older adults: results from wave 2 of the National Epidemiologic Survey on Alcohol and Related Conditions. *Journal of the American Geriatrics Society*, 60(2), 296-303.

Pole, N. (2007). The psychophysiology of posttraumatic stress disorder: a meta-analysis. *Psychological bulletin*, 133(5), 725.

Roberts, A. L., Agnew-Blais, J. C., Spiegelman, D., Kubzansky, L. D., Mason, S. M., Galea, S., ... & Koenen, K. C. (2015). Posttraumatic stress disorder and incidence of type 2 diabetes mellitus in a sample of women: a 22-year longitudinal study. *JAMA psychiatry*, 72(3), 203-210.

Sachs-Ericsson, N., Kendall-Tackett, K., & Hernandez, A. (2007). Childhood abuse, chronic pain, and depression in the National Comorbidity Survey. *Child abuse & neglect*, 31(5), 531-547.

Tan, G., Dao, T. K., Farmer, L., Sutherland, R. J., & Gevirtz, R. (2011). Heart rate variability (HRV) and posttraumatic stress disorder (PTSD): a pilot study. *Applied psychophysiology and biofeedback*, 36(1), 27-35.

Vancampfort, D., Rosenbaum, S., Ward, P. B., Steel, Z., Lederman, O., Lamwaka, A. V., ... & Stubbs, B. (2016). Type 2 diabetes among people with posttraumatic stress disorder: systematic review and meta-analysis. *Psychosomatic medicine*, 78(4), 465-473.

van den Berk-Clark, C., Secrest, S., Walls, J., Hallberg, E., Lustman, P. J., Schneider, F. D., & Scherrer, J. F. (2018). Association between posttraumatic stress disorder and lack of exercise, poor diet, obesity, and co-occurring smoking: A systematic review and meta-analysis. *Health Psychology*, 37(5), 407.

Vancampfort, D., Stubbs, B., Richards, J., Ward, P. B., Firth, J., Schuch, F. B., & Rosenbaum, S. (2017). Physical fitness in people with posttraumatic stress disorder: a systematic review. *Disability and rehabilitation*, 39(24), 2461-2467.

Yang, J. J., & Jiang, W. (2020). Immune biomarkers alterations in post-traumatic stress disorder: a systematic review and meta-analysis. *Journal of affective disorders*, 268, 39-46.