Addressing Childhood and Developmental Trauma including ACE Study: Brief Strategies and Interventions

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CDC-Kaiser ACE Study

- Conducted at Kaiser Permanente from 1995 to 1997
- Sample - 17,000 Health Maintenance Organization members completed confidential surveys regarding their childhood experiences and current health status and behaviors
- One of the first studies considering correlation between “adult health risk behaviours, health status, and disease states to childhood abuse and household dysfunction” ([1] p. 246)

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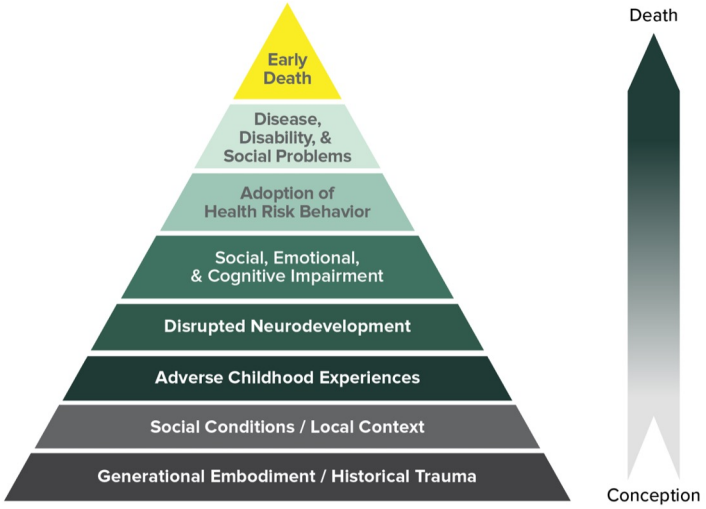

Mechanism by which Adverse Childhood Experiences Influence Health and Well-being Throughout the Lifespan

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Source:
Centers for Disease Control and Prevention, Kaiser Permanente. The ACE Study Survey Data [Unpublished Data]. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention; 2016.

ACE Score Prevalence for CDC-Kaiser ACE Study Participants by Sex, Waves 1 and 2.

Number of Adverse Childhood Experiences (ACE Score)	Women Percent(N = 9,367)	Men Percent (N = 7,970)	Total Percent (N = 17,337)
0	34.5%	38.0%	36.1%
1	24.5%	27.9%	26.0%
2	15.5%	16.4%	15.9%
3	10.3%	8.5%	9.5%
4 or more	15.2%	9.2%	12.5%

Note: Research papers that use Wave 1 and/or Wave 2 data may contain slightly different prevalence estimates.

Source: Centers for Disease Control and Prevention, Kaiser Permanente. The ACE Study Survey Data [Unpublished Data]. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention; 2016.

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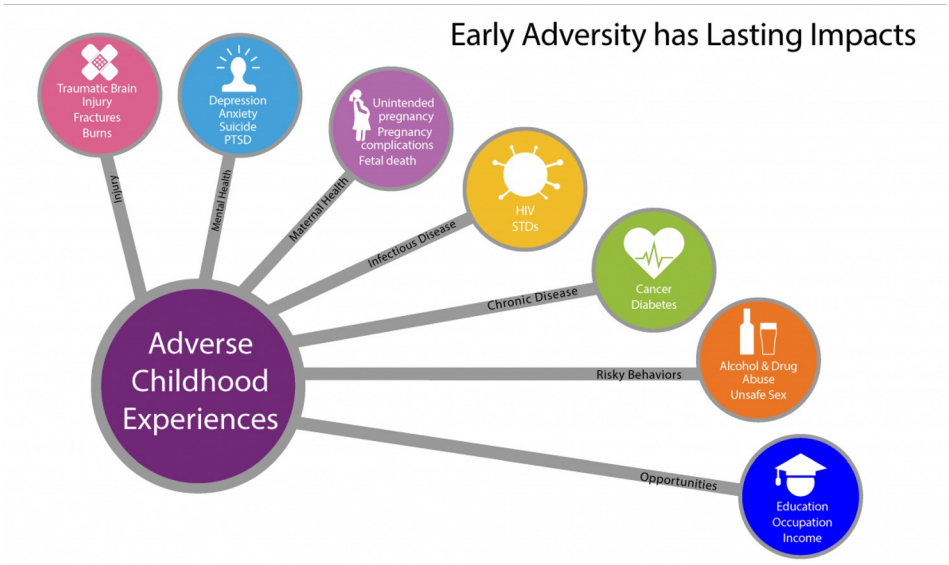

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Source:
Centers for Disease Control and Prevention, Kaiser Permanente. The ACE Study Survey Data [Unpublished Data]. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention; 2016.

ACES - Major Findings

- ACEs are common across all populations
- Some populations are more vulnerable to experiencing ACEs
- Graded dose-response relationship between ACEs and negative health and well-being outcomes
- As the number of ACEs increases so does the risk for negative outcomes

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Source: Centers for Disease Control and Prevention, Kaiser Permanente. The ACE Study Survey Data [Unpublished Data]. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention; 2016.

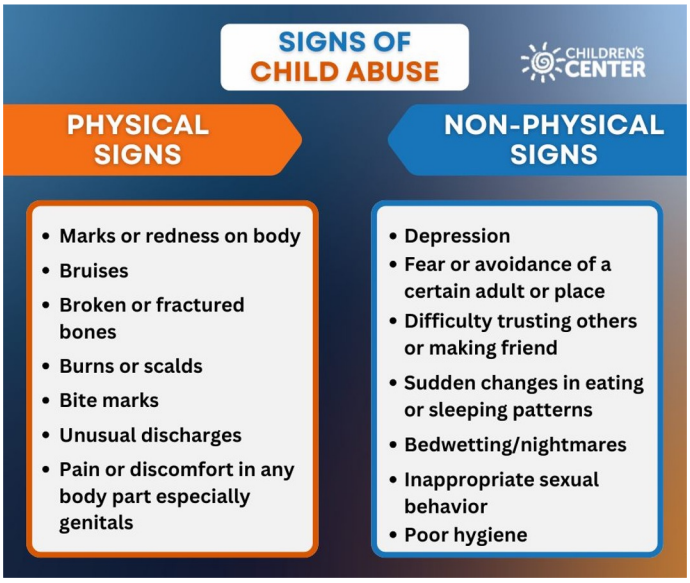

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Table 4. Number of categories of adverse childhood exposure and the adjusted odds of risk factors including current smoking, severe obesity, physical inactivity, depressed mood, and suicide attempt

Health problem	Number of categories	Sample size (N)[a]	Prevalence (%)[b]	Adjusted odds ratio[c]	95% confidence interval
Current smoker[d]	0	3,836	6.8	1.0	Referent
	1	2,005	7.9	1.1	(0.9–1.4)
	2	1,046	10.3	1.5	(1.1–1.8)
	3	587	13.9	2.0	(1.5–2.6)
	4 or more	544	16.5	2.2	(1.7–2.9)
	Total	8,018	8.6	—	—
Severe obesity[d] (BMI ≥ 35)	0	3,850	5.4	1.0	Referent
	1	2,004	7.0	1.1	(0.9–1.4)
	2	1,041	9.5	1.4	(1.1–1.9)
	3	590	10.3	1.4	(1.0–1.9)
	4 or more	543	12.0	1.6	(1.2–2.1)
	Total	8,028	7.1	—	—
No leisure-time physical activity	0	3,634	18.4	1.0	Referent
	1	1,917	22.8	1.2	(1.1–1.4)
	2	1,006	22.0	1.2	(1.0–1.4)
	3	559	26.6	1.4	(1.1–1.7)
	4 or more	523	26.6	1.3	(1.1–1.6)
	Total	7,639	21.0	—	—
Two or more weeks of depressed mood in the past year	0	3,799	14.2	1.0	Referent
	1	1,984	21.4	1.5	(1.3–1.7)
	2	1,036	31.5	2.4	(2.0–2.8)
	3	584	36.2	2.6	(2.1–3.2)
	4 or more	542	50.7	4.6	(3.8–5.6)
	Total	7,945	22.0	—	—
Ever attempted suicide	0	3,852	1.2	1.0	Referent
	1	1,997	2.4	1.8	(1.2–2.6)
	2	1,048	4.3	3.0	(2.0–4.6)
	3	587	9.5	6.6	(4.5–9.8)
	4 or more	544	18.3	12.2	(8.5–17.5)
	Total	8,028	3.5	—	—

[a]Sample sizes will vary due to incomplete or missing information about health problems.
[b]Prevalence estimates are adjusted for age.
[c]Odds ratios adjusted for age, gender, race, and educational attainment.
[d]Indicates information recorded in the patient's chart before the study questionnaire was mailed.

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[1] p. 252

Findings [1]

- "The findings suggest that the impact of these adverse childhood experiences on adult health status is strong and cumulative" p.251
- "However, the analysis we present illustrates the need for an overview of the net effects of a group of complex interactions on a wide range of health risk behaviors and diseases." p. 251
- "An essential question posed by our observations is, 'Exactly how are adverse childhood experiences linked to health risk behaviors and adult diseases?'" p.252

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Linking ACE and Risk

- "The linking mechanisms appear to center on behaviors such as smoking, alcohol or drug abuse, overeating, or sexual behaviors that may be consciously or unconsciously used because they have immediate pharmacological or psychological benefit as coping devices in the face of the stress of abuse, domestic violence, or other forms of family and household dysfunction." [1] p. 253
- "High levels of exposure to adverse childhood experiences would expectedly produce anxiety, anger, and depression in children. To the degree that behaviors such as smoking, alcohol, or drug use are found to be effective as coping devices, they would tend to be used chronically." [1] p. 253
- "Understanding the causal mechanisms through which any prenatal exposure may affect offspring mental health remains a critical objective for psychiatric epidemiology" [2] p.61

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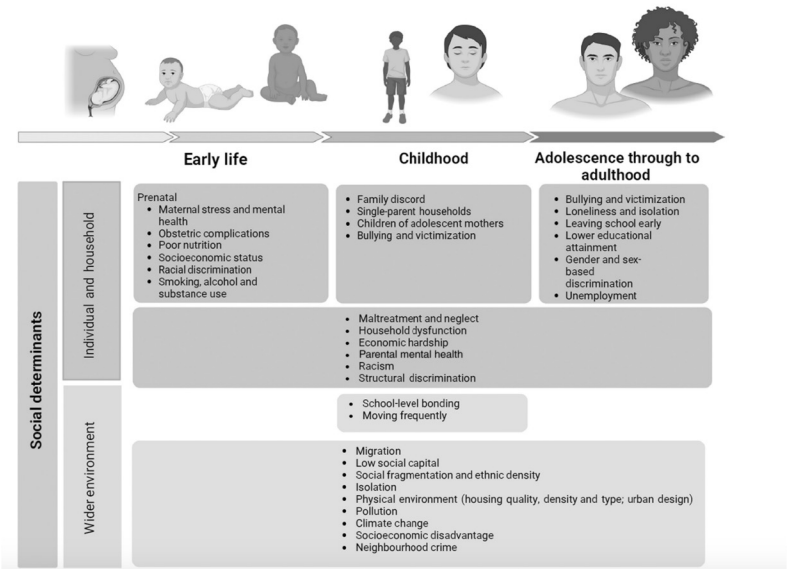

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[2]

Social Determinants on Mental Health [2]

- "The risk of developing any mental health condition is inextricably linked to our life circumstances" (p. 58)
- "Socioeconomic disadvantage is a fundamental determinant of mental health outcomes over the life course" (p. 60)
- "Early life exposure to socioeconomic disadvantage may increase risk of mental health problems through several different mechanisms, based on potential biological, psychological and social pathways" (p. 61)

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RESEARCH ARTICLE

Trauma informed interventions: A systematic review

Hae-Ra Han[1,2]*, Hailey N. Miller[3], Manka Nkimbeng[4], Chakra Budhathoki[1], Tanya Mikhael[1], Emerald Rivers[1], Ja'Lynn Gray[1], Kristen Trimble[5], Sotera Chow[6], Patty Wilson[1]

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Conclusions

There is inconsistent evidence to support trauma informed interventions as an effective approach for psychological outcomes. Future trauma informed intervention should be expanded in scope to address a wide range of trauma types such as racism and discrimination. Additionally, a wider range of trauma outcomes should be studied.

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Resilience

- Resilience research increased in correlation with the etiology of psychopathology and recognition between variations in adaptive behavior in high-risk samples, which was highlighted in ACE study [7]
- Resilience research began in the 1970s in the same context that gave rise to developmental psychopathology [7]
- Looked at positive and negative pathways leading from psychopathology
- Considers the system and development of the individual
- "Study of individuals 'off the risk gradient' who manifest positive adjustment and development despite risk or adversity exposures [7,p.526]
- In addressing how trauma "gets into the brain and body" - Positive experiences have also been found to influence the biology and development of adaptation at multiple neurobiological levels [7]

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Table 1 Sample of resilience definitions reflecting a dynamic systems perspective

Source	Definition
Acosta et al. (2017, p. ii)	"…the capacity of a dynamic system, such as a community, to anticipate and adapt successfully to challenges"
Cicchetti (2013, p. 404)	"…a dynamic developmental process encompassing the attainment of positive adaptation despite exposure to significant threat, severe adversity, or trauma…"
Feder et al. (2019, p. 443)	"…a complex and dynamic process, broadly defined as the ability to adapt successfully to adversity, stressful life events, significant threat, or trauma"
Folke (2016)	"…persistence, adaptability, and transformability of complex adaptive social-ecological systems…having the capacity to persist in the face of change, to continue to develop with ever changing environments"
Luthar et al. (2015, p. 247)	"A dynamic process reflecting positive child adjustment despite significant risk or adversity"
Masten (2007, p. 921)	"…the capacity of dynamic systems to withstand or recover from significant disturbances"
Panter-Brick & Leckman (2013, p. 333)	"…the process of harnessing biological, psychosocial, structural, and cultural resources to sustain well-being"
Ungar (2018)	"…the capacity of a system to anticipate, adapt, and reorganize itself under conditions of adversity in ways that promote and sustain its successful functioning"
van Breda (2018, p. 4)	"The multilevel processes that systems engage in to obtain better-than-expected outcomes in the face or wake of adversity"

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[7]

Resilience

"The capacity of a dynamic system to adapt successfully through multisystem processes to challenges that threaten the function, survival, or development of the system." [7, P.524]

- Resilience is dynamic, changing over time as a result of multiple processes and development.
- Resilience of a person or a family extends beyond the individual or family system level to encompass the capacity and resources that can be mobilized in response to challenges through processes connecting that person or family to additional capacity and resources.
- Resilience capacity is distributed across multiple systems; the resilience of an individual person depends on many systems, both internal and external to the person.
- Resilience can manifest in multiple possible pathways over time.
- Resilience can cascade across levels, domains of function, and generations.
- Interventions to nurture or bolster resilience can target different processes within levels or linking system levels.

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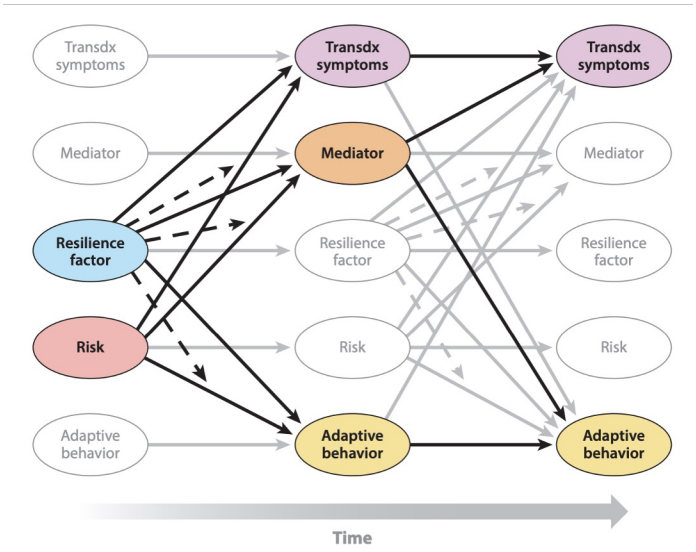

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[7, p.532]

Table 2 Short list of multisystem resilience factors

Sensitive caregiving, close relationships, social support
Sense of belonging, cohesion
Self-regulation, family management, group or organization leadership
Agency, beliefs in system efficacy, active coping
Problem-solving and planning
Hope, optimism, confidence in a better future
Mastery motivation, motivation to adapt
Purpose and a sense of meaning
Positive views of self, family, or group
Positive habits, routines, rituals, traditions, celebrations

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[7, p.533]

Variation in the Impact of Trauma

- Characteristic of the traumatic event [6]
- Individuals psychological, genetic, and neurobiological makeup
- Social-cultural influences

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Trauma and Stress-Related Disorders in DSM-5

Post-Traumatic Stress Disorder (PTSD)
Exposure to actual or threatened death, serious injury, or sexual violence, leading to intrusive symptoms, avoidance, negative alterations in cognition and mood, and heightened arousal.

Acute Stress Disorder
Temporary but severe anxiety, dissociative, and other symptoms occurring within one month after a traumatic event.

Adjustment Disorders
Emotional or behavioral symptoms in response to an identifiable stressor, occurring within three months of the stressor.

Reactive Attachment Disorder
Failure to form healthy attachments with caregivers in early childhood due to neglect or abuse.

Other Specified Trauma- and Stressor- related disorder
Symptoms do not meet criteria for other diagnosis in category but are due to a stressor. Provide specifics such as PTSD like symptoms

Unspecified trauma-and stressor-related disorder
Typically used in an emergency room when a proper diagnosis cannot be obtained

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Trauma Recovery Trajectory [3]

- Resilience – 65.7%
- Recovery – 20.8%
- Chronic - 10.6%
- Delayed onset- 8.9%
- Among patients assessed in clinical settings, 18-50% experienced recovery within 3-7 years, while the remainder had a recurrent or more chronic course [5]
- Most RCTs to date have excluded people with more complex presentations of PTSD and, given their prevalence and the morbidity associated with such presentations, a research focus on them is required. [4]

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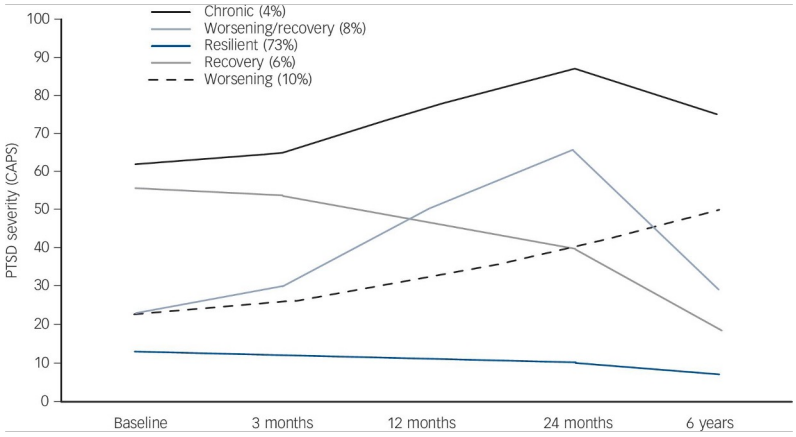
Treatment Resistance



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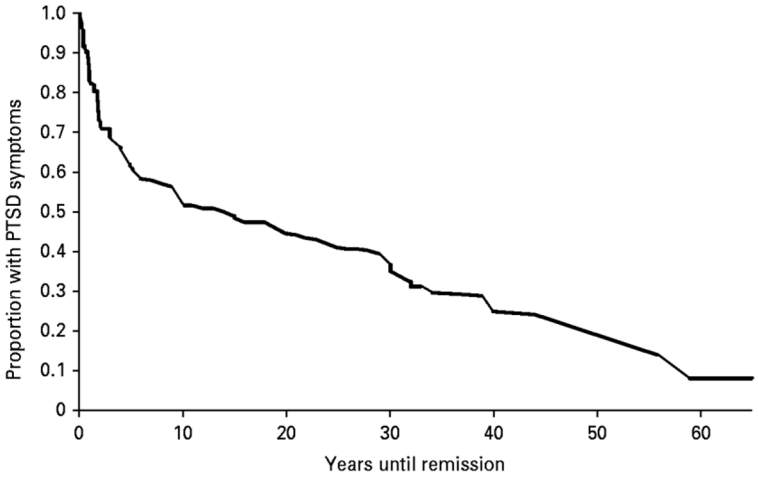
Chapman, C., Mills, K., Slade, T., McFarlane, A. C., Bryant, R. A., Creamer, M., & Teesson, M. (2012). Remission from post-traumatic stress disorder in the general population. *Psychological Medicine*, *42*(8), 1695–1703. doi:10.1017/S0033291711002856



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"Recovery is not about 'getting rid' of problems. It is about seeing people beyond their problems – their abilities, possibilities, interests and dreams – and recovering the social roles and relationships that give life value and meaning"

- Slade, 2010

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Interventions to Build Resilience [8]

- Face fear
- Realistic optimism and positive emotions
- Social support
- Active and flexible coping
- Acceptance and positive reappraisal
- Religious and spiritual practices
- Meaning and purpose

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PTSD

Exhibit 1.3-4 DSM-5 Diagnostic Criteria for PTSD

Note: The following criteria apply to adults, adolescents, and children older than 6 years. For children 6 years and younger, see the DSM-5 section titled "Posttraumatic Stress Disorder for Children 6 Years and Younger" (APA, 2013a).

A. Exposure to actual or threatened death, serious injury, or sexual violence in one (or more) of the following ways:

1. Directly experiencing the traumatic event(s).
2. Witnessing, in person, the event(s) as it occurred to others.
3. Learning that the traumatic event(s) occurred to a close family member or close friend. In cases of actual or threatened death of a family member or friend, the event(s) must have been violent or accidental.
4. Experiencing repeated or extreme exposure to aversive details of the traumatic event(s) (e.g., first responders collecting human remains; police officers repeatedly exposed to details of child abuse). **Note:** Criterion A4 does not apply to exposure through electronic media, television, movies, or pictures, unless this exposure is work related.

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Distinct Nature of PTSD

- Involuntary re-experiencing of traumatic event as unique characteristic [6]
- Re-experiencing of traumatic event often accompanied with painful emotions
- Abnormal memory phenomenon
- No consensus as to cause

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Complex PTSD (ICD-11)

psych scene

Core symptoms of PTSD

Negative Self Concept

- Persistent beliefs about self as diminished, defeated or worthless
- Feelings of shame or guilt

Emotional dysregulation

- Heightened emotional reactivity
- Violent outbursts
- Reckless or self – destructive behaviour
- Dissociative states under stress

Interpersonal difficulties

- Persistent difficulties in sustaining relationships due to tendency to avoid, deride or have little interest in relationships
- Intense relationships but difficulty maintaining emotional engagement

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Stage (phased)-Based Treatment

- Debated as to the merit
  - Phase-based treatment recommended for Complex PTSD by the International Society for Traumatic Stress Studies (ISTSS)

- **Phase 1 - Safety and Stabilization [14]**
  - Not needed for every client (don't encourage avoidance)
  - Focused on creating coping skills
  - Emotional regulation
  - Sobriety
  - Goals
    - Ensure client safety
    - Improve expression of emotion
    - Increase positive beliefs about self
    - Address feelings of guilt shame
    - Improve interpersonal functioning

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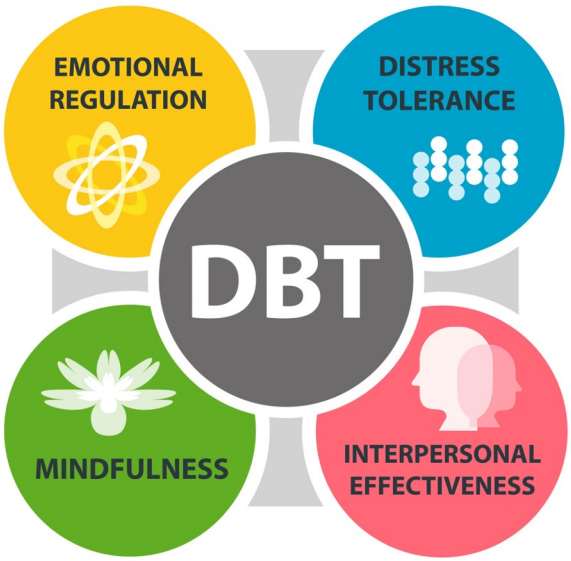

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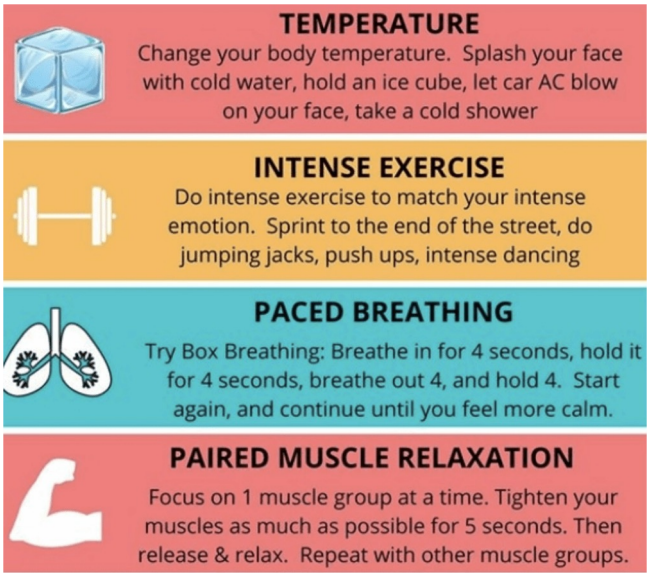

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Stage (phased)-Based Treatment

- **Phase 2 - Exposure**
  - Focuses on review of trauma
  - Aim is re-experiencing traumatic events in which the client feels safe
  - Evidenced based protocol (APA Guidelines)
    - TF-CBT
    - CPT
    - Prolonged Exposure Therapy

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Stage (phased)-Based Treatment

- **Phase 3 - Transition back to everyday life**
  - Goal is to reinforce the emotional, social, and relationship skills of the client
  - Positive psychology is the science of what is needed for a good life.
  - Assessment (Slade, 2010)
    - 1. Deficiencies and undermining characteristics of the person
    - 2. Strengths and assets of the person
    - 3. Lacks and destructive factors in the environment
    - 4. Resource and opportunities in the environment

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ELSEVIER

Journal of Affective Disorders
Volume 251, 15 May 2019, Pages 227-230

Positive mental health as a predictor of recovery from mental illness

Matthew Iasiello [a b], Joseph van Agteren [a c], Corey L.M. Keyes [d], Eimear Muir Cochrane [b]

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Highlights

- Individuals who gain or maintain high levels of positive mental health are much more likely to recover from an affective disorder than those with low positive mental health.
- Positive mental health and mental illness are separate constructs, and both should be included in the assessment of patients interacting with mental health care systems.
- Improving and maintaining positive mental health may be an important strategic focus for reducing the burden of mental illness.
- Mental health care systems should explore offering of services designed to improve positive mental health in addition to reducing mental distress.

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Corey Keyes' Dual Continuum Model

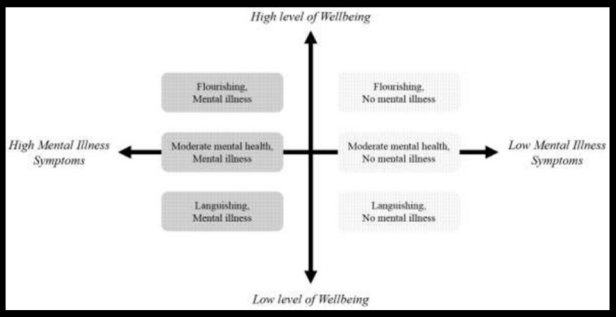

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Figure 1: The Complete State Model of Mental Health. The 6 sub-groups constructed by Keyes et al. (2010) are depicted, the light-coloured squares indicate the groups analysed in the Keyes et al. (2010) article, and dark-coloured squares indicate groups analysed in the current study.

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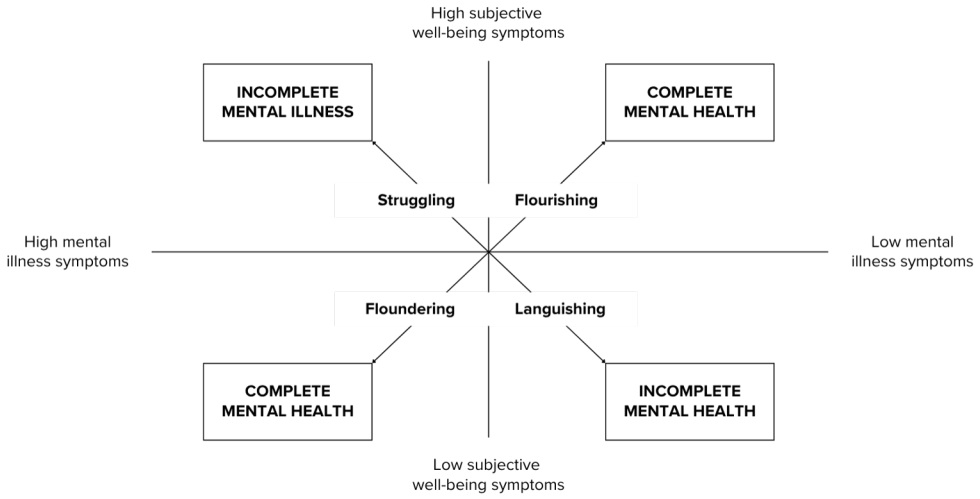

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Slade, 2010

Languishing [13]

- Emotionally flattened- difficult to muster up excitement
- Life circumstances seem increasingly dictated by external forces
- Procrastinating on tasks as a “why-try-anyway” attitude
- More things strike you as irrelevant, superficial, or boring
- Unease that you are missing something that will make your life feel complete again but not sure what it is
- Feel disconnected from your own community and or/ a greater purpose or cause
- Brain fog
- Feel restless, even rootless
- Small setbacks leave you feeling defeated
- Hard to find motivation to reach out to friends and family
- Sense of self is “flickering or plummeting”

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Table 1 Prevalence of mental health and mental illness

Condition	Prevalence (%)
Mental Illness and Languishing	7
Mental Illness and Moderately Mentally Healthy	15
Mental Illness and Flourishing	1
Languishing (and no mental illness)	10
Moderate Mental Health (and no mental illness)	51
Complete Mental Health (Flourishing, no mental illness)	17

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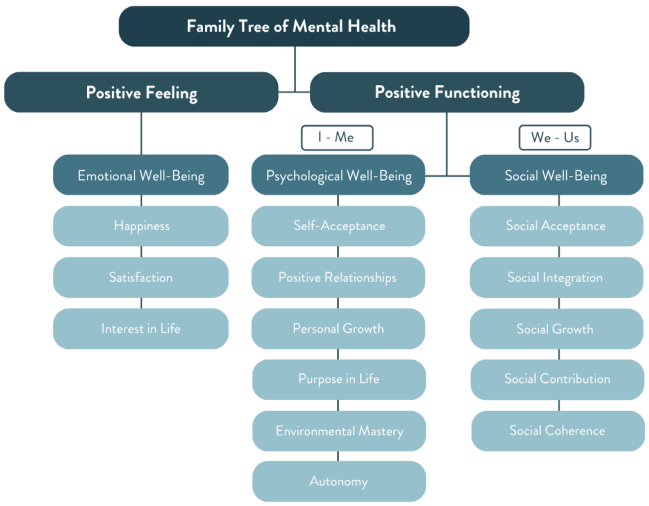
Slade, 2010



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The Five Vitamins for Flourishing

Follow Your Curiousity to Learn Something New
For bolstering your sense of competence and rewriting your self-narrative through personal growth

Build Warm and Trusting Relationships
For a deeper sense of belonging, intimacy, and being "truly known" - and remember quality matters more than quantity

Move Closer to the Sacred, the Divine, and the Infinite (through Contemplation, Meditation, or other Spiritual Practices)
For awareness of your union with all living things, unconditional acceptance and generosity towards yourself and others, and appreciation of the mysteries of life.

Play (Make Time for Activities Where You Enjoy the Process, not the Outcome)
For re-discovering joy, re-connecting with your imagination, practicing active leisure, and breaking away from achievement obsession

Have and Live Your Purpose
For finding personal significance in the mundane, calm in the face of setbacks, and a profound sense of "mattering" to your community and world

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[13, p.83]

Slade *BMC Health Services Research* 2010, **10**:26
http://www.biomedcentral.com/1472-6963/10/26

BMC
Health Services Research

DEBATE **Open Access**

Mental illness and well-being: the central importance of positive psychology and recovery approaches

Mike Slade*

Summary: If health services are to give primacy to increasing well-being, rather than to treating illness, then health workers need new approaches to working with individuals. For mental health services, this will involve the incorporation of emerging knowledge from recovery and from positive psychology into education and training for all mental health professionals, and changes to some long-established working practices.

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Mental health is a state of well-being, in which an individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively, and is able to make a contribution to his or her community.

World Health Organization

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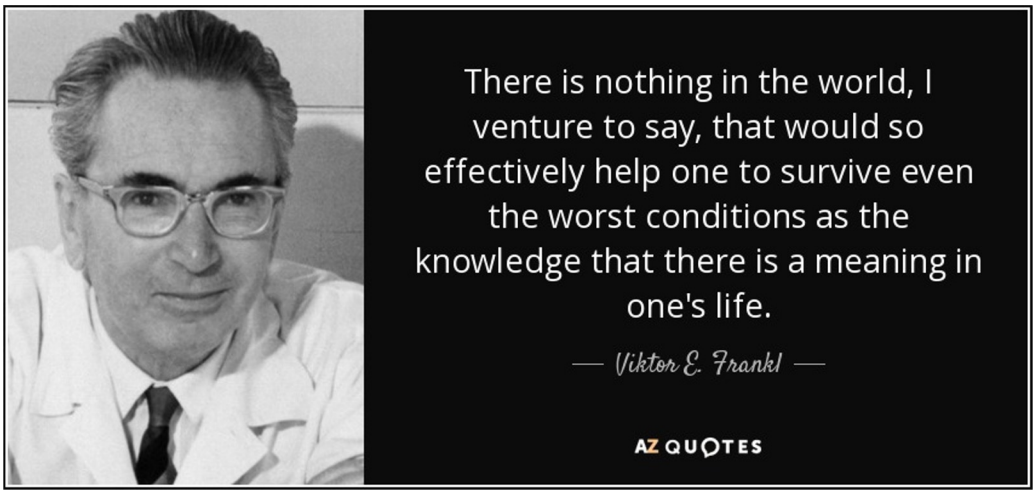

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Posttraumatic Growth

- PTG refers to the positive psychological changes that may occur after experiencing a traumatic event
- Manifestations of these posttraumatic benefits include greater appreciation for life, more meaningful interpersonal relationships, enhanced spiritual beliefs, a new-found purpose in life, and an increased sense of personal strength [9]
- “Current research indicates that psychological distress following trauma may be necessary to initiate the cognitive processes that may help facilitate PTG.” [9, p. 2]
- Higher levels of PTG correspond with higher levels of quality of life [9]

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PTG helps individuals live a fuller and more meaningful life,
it does not allow a return to normality.

it would appear that PTG and psychological comfort may be distinct constructs. Indeed, the literature mostly suggests that “growth will not necessarily decrease pain or increase happiness, but on the contrary, significant growth may only occur when it is preceded by, or when it occurs together with significant amounts of subjective distress”
(Tedeschi, Park & Calhoun, 1998, p.217)

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Journal of Affective Disorders
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Research paper

Dynamic interplay between PTSD symptoms and posttraumatic growth in older military veterans

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Highlights

- This study examined posttraumatic stress disorder symptoms and posttraumatic growth in a nationally representative cohort of 2006 older U.S. veterans over a four-year period.
- Autoregressive cross-lagged panel regression analyses revealed that posttraumatic stress disorder symptoms had strong associations with both current and subsequent posttraumatic growth.
- Results of this study suggest that greater severity of posttraumatic stress disorder symptoms, particularly avoidance and hyperarousal symptoms, may contribute to and maintain posttraumatic growth over time in older veterans.
- Deliberate, constructive attempts to manage chronic posttraumatic stress disorder symptoms via active coping and religious coping may help promote greater posttraumatic growth over time in this population.

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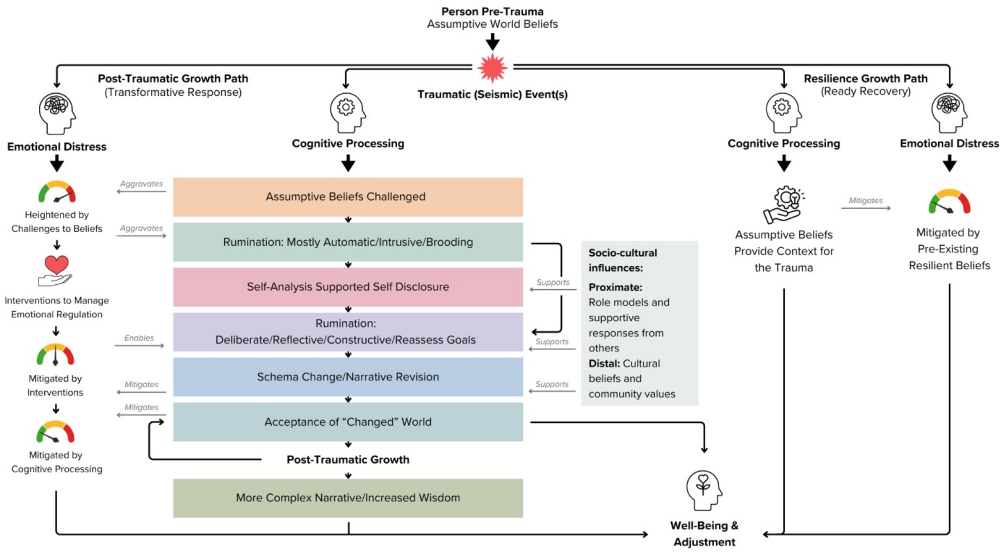
Theoretical Model of Post-Traumatic Growth



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APPLIED PSYCHOLOGY: AN INTERNATIONAL REVIEW, 2007, *56* (3), 345–366
doi: 10.1111/j.1464-0597.2007.00292.x

Refining our Understanding of Traumatic Growth in the Face of Terrorism: Moving from Meaning Cognitions to Doing what is Meaningful

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PTG Actions

- "Indeed, while Calhoun and Tedeschi (2014) tend to describe the growth process as a search for meaning (e.g. cognitive engagement), Hobfoll et al. (2007) make a distinction between growth actions and growth cognitions, stating that cognitive change alone is not sufficient for growth to occur. Indeed, they show in one of their studies that PTG may only be beneficial if it includes taking action." [9]

- Posttraumatic Growth Actions play an important role in the reduction of posttraumatic stress reduction [9]

PTG Actions

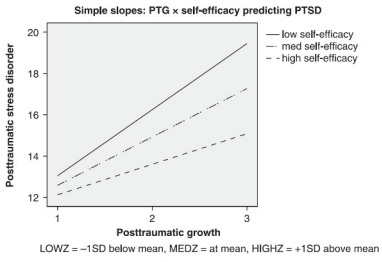

FIGURE 2 The impact of self-efficacy and post-traumatic growth on PTSD symptoms.

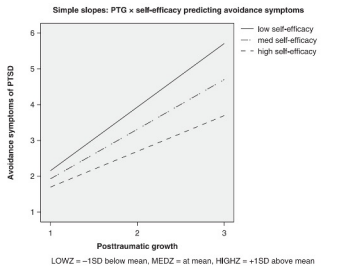

FIGURE 3 The impact of self-efficacy and post-traumatic growth on avoidance symptoms.

"In line with Victor Frankl's (1959) existential discourse and the weighty evidence of behavioral activation in the behavioral and cognitive behavioral tradition (Jacobson, Martell, & Dimidjian, 2001; Martell, Addis, & Dimidjian, 2004), we now conceptualise true posttraumatic growth not simply as cognitive process, or intellectual exercise in reframing, but salutogenesis through action growth whereby an individual actualises their benefit-finding cognitions—or reifies their illusions through action." [10]

Self-Determination

- Self-determination theory (SDT) is a macro-theory of human motivation, personality development, and well-being [12]
- Universal psychological needs
  - Autonomy
  - Competency
  - Relatedness
- Posits that psychological health involves the fulfillment of all three needs

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References

1. Felitti, V. J., Anda, R. F., Nordenberg, D., Williamson, D. F., Spitz, A. M., Edwards, V., & Marks, J. S. (1998). Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: The Adverse Childhood Experiences (ACE) Study. *American journal of preventive medicine*, *14*(4), 245-258.

2. Kirkbride, J. B., Anglin, D. M., Colman, I., Dykxhoorn, J., Jones, P. B., Patalay, P., ... & Griffiths, S. L. (2024). The social determinants of mental health and disorder: evidence, prevention and recommendations. *World psychiatry*, *23*(1), 58-90.

3. Han, H. R., Miller, H. N., Nkimbeng, M., Budhathoki, C., Mikhael, T., Rivers, E., ... & Wilson, P. (2021). Trauma informed interventions: A systematic review. *PloS one*, *16*(6), e0252747.

4. Brewin, C. R., Atwoli, L., Bisson, J. I., Galea, S., Koenen, K., & Lewis-Fernández, R. (2025). Post-traumatic stress disorder: evolving conceptualization and evidence, and future research directions. *World Psychiatry*, *24*(1), 52-80.

5. Steinert C, Hofmann M, Leichsenring F et al. The course of PTSD in naturalistic long- term studies: high variability of outcomes. A systematic review. Nord J Psychiatry 2015;69:483-96.

6. Weinberg M, Gil S. Trauma as an objective or subjective experience: the association between types of traumatic events, personality traits, subjective experience of the event, and posttraumatic symptoms. J Loss Trauma 2016;21:137-46

7. Masten, A. S., Lucke, C. M., Nelson, K. M., & Stallworthy, I. C. (2021). Resilience in development and psychopathology: Multisystem perspectives. *Annual review of clinical psychology*, *17*(1), 521-549.

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References

8. Southwick, S. M., & Charney, D. S. (2021). Resilience for Frontline Health Care Workers: Evidence-Based Recommendations. *The American journal of medicine*, *134*(7), 829–830. https://doi.org/10.1016/j.amjmed.2021.02.010

9. Kautz MM, Collins A, Schechter CB, et al. Longitudinal Trajectories of PTSD Symptoms Predict Levels of Posttraumatic Growth in World Trade Center Responders. *Chronic Stress*. 2022;6. doi:10.1177/24705470221122898

10. Hobfoll, S. E., Hall, B. J., Canetti-Nisim, D., Galea, S., Johnson, R. J., & Palmieri, P. A. (2007). Refining our understanding of traumatic growth in the face of terrorism: Moving from meaning cognitions to doing what is meaningful. *Applied Psychology*, *56*(3), 345-366.

11. Darby, R. J., Taylor, E. P., & Cadavid, M. S. (2023). Phase-based psychological interventions for complex post-traumatic stress disorder: A systematic review. *Journal of Affective Disorders Reports*, *14*, 100628.

12.Ryan, R. (2009). Self determination theory and well being. *Social Psychology*, *84*(822), 848.

13. Keyes, C. (2025). *Languishing: How to feel alive again in a world that wears us down*. Random House.