



Healing Emotional Trauma

Part 1: How Does Our Childhood Biography Become Our Biology?

<http://www.nikigratrix.com/healing-emotional-trauma-part-1-how-does-our-biography-become-our-biology/>

People who experienced trauma in childhood have an increased risk of 7 out of 10 of the top ten causes of death and a 20-year reduction in lifespan. How does emotional trauma and early life stress change our biology over a lifetime? It turns out that emotional trauma has an effect on three major areas: our behaviour, biochemistry, and our beliefs, all of which lead to diseases and health conditions in later life.



Behaviour



People with ACEs are more likely to lack education about healthy lifestyle patterns. A study of 28,000 Californians showed people with 4 or more ACEs are less likely to be educated about health, with a 21% increased chance they will live below the poverty line, 39% more likely to be unemployed, and 27% less likely to have a college degree.

However, lack of education is not enough to explain the level of destructive health behaviours found in people with ACEs.

Unresolved emotional trauma from childhood leads to addictions and others habits, like over-eating to suppress or distract from emotional pain, caused by the trauma.



The same study of 28,000 Californians showed that if a person has 4 or more ACEs, they are 10.3 times more likely to use injection drugs, 7.4 times more likely to be an alcoholic, 2.93 times more likely to be a smoker, 3.23 times more likely to binge drink, and 3.3 times more likely to engage in risky sexual behaviour.

Clearly, these behaviours will lead to increased risk of diseases, like hepatitis, chronic obstructive pulmonary disease, cancer, diabetes, and heart disease.



ACE's also lead to other destructive health patterns, which lead to lack of healthy self-care, including workaholism, perfectionism, over-achievement, over-giving, discounting personal needs, eating disorders, and much more.

An example of how an ACE can sabotage healthy behaviours is demonstrated by the original ACE research by Dr Felitti at Kaiser Permanente in the obesity clinic. Felitti couldn't understand why people would be doing great on his weight loss program, then 55% would drop out.



So, in the late '80s, Felitti began a systematic study of 286 obese people and discovered that 50% had been sexually abused as children. That rate is more than 50% higher than the rate normally reported by women and more than triple the average rate in men.



The participants would report increasing anxiety and panic attacks when they were losing weight successfully. One woman, who had suffered sexual abuse in childhood, summed up the problem when she expressed that being overweight was her protection mechanism. It put men off from giving unwanted attention and provided a layer of protection. These findings kicked off the much larger studies, starting in the mid-1990s with the CDC.

However, behaviour is not enough to explain the increased risks of health conditions later in life in people with ACEs...



ACE's clearly impact behaviour, but it turns out, it is not enough to explain the increased risk of health conditions in later life. For example, the original ACE study showed that if a person had 7 ACEs, but didn't smoke or drink, had normal cholesterol, and wasn't overweight, they were still 360% more likely than someone with 0 ACEs to get heart disease!

This was also found to be true in a study, published by BioMedical Central in 2010, studying over 17,000 adults, on the link between ACE's, smoking, and lung cancer. Researchers stated: "Adverse childhood experiences may be associated with an increased risk of lung cancer...The increase in risk may only be partly explained by smoking suggesting other possible mechanisms by which ACEs may contribute to the occurrence of lung cancer."

So what is going on?

ACE's and the effect on The Biochemical Stress Mechanism

When we face either a chemical, electrical, microbial, or emotional stressor, the body responds with increased activity in the brain's limbic system, and a message is sent to the hypothalamus via the pituitary to the adrenal glands to release stress hormones, including adrenalin and cortisol. These hormones ready the body for a flight or fight response.



However, in the case of emotional trauma in childhood, when neither a flight nor flight response is possible, these impulses cannot switch off, and two things result: 1/ The

trauma becomes “frozen into the psyche and the body” 2/ In young developing brains, a low grade intermittent stressor or shock resets the limbic-hypothalamus-pituitary-adrenal system for good, resulting in a LOWERED threshold required to stimulate a response in the future.

In other words, young brains become hardwired to respond to stress more easily; less external stress is required to produce all the cascading changes in the body, which result from a stress response.

The world-leading expert in the case definition of Chronic Fatigue Syndrome, Dr Leonard Jason, and colleagues called this process “limbic kindling” in relation to Chronic Fatigue Syndrome, in a paper called, “Kindling and Oxidative Stress as Contributors to Myalgic Encephalomyelitis/Chronic Fatigue Syndrome.” Limbic kindling has also been used as a theoretical model for epilepsy.

The results of chronic low grade stress from childhood on our biology include:

- Constant chronic low grade inflammation in the brain and body
- Increased free radical stress in the brain and body
- Sympathetic nervous system hyperactivity
- Parts of the immune system over-react; other parts don’t work hard enough i.e. food and chemical sensitivities, susceptibility to infections
- Hormonal imbalances, for example, in Chronic Fatigue, adrenal glands reduce in size and cortisol output is reduced; in major depression, it is the opposite
- Dysbiosis and leaky gut

Depending on the genetic propensity or the weak link, some people may develop sensitivity to chemicals, others to pain (e.g. Fibromyalgia), and others develop autoimmune diseases, cancer, heart disease, and so on.

Epigenetics and Early Life Stress

Research shows early life stress epigenetically resets the glucocorticoid receptors, resulting in a lowered threshold required for a stress response. So, early life stress causes chronic release of stress hormones and inflammatory cytokines. Genes that shut off the stress response are silenced.

The body is flooded with inflammation at the slightest provocation, and researchers have confirmed that crucial set of breaks are off, and the body is marinating in inflammatory chemicals.

A study by Dr Joan Kaufman and colleagues also looked at epigenetic differences in children with ACEs and found gene expression changes across the entire genome, including genes implicated in cardiovascular diseases, obesity, and cancer.

Brain Inflammation and Early Life Stress

Toxic early life stress also creates low grade inflammation in the brain, something that was thought not to be possible. Studies have shown that stress triggers immune cells, called microglia to ingest neurones.

The job of the microglia is to prune unnecessary neurones; however, toxic stress causes them to go berserk, according to the research. A new understanding in brain science is that new neurones are



generated in the hippocampus. When microglia cells are out of control, they prevent neurogenesis, leading to depression and inflammation.

As a result, the brain is swamped in neurochemicals, leading to chronic neuroinflammation, which is being associated as a cause of mental disorders, including anxiety, depression, bipolar, poor executive function and decision making, and even Alzheimer's.

Beliefs

As stated above, in the example of the obesity study at Kaiser Permanente, ACE's impact our beliefs, which can lead to destructive health behaviours, like not sticking to a weight loss program due to the belief being thin was "unsafe."

Beliefs have an extremely powerful effect on biology, directly and indirectly, via behaviour. The most studied and tested effect on biology in science is probably the placebo effect, because every randomized controlled trial has a control group to rule out the placebo. A strong powerful belief that something will heal us...usually does, even if it was just a sugar pill.

Presently a full 1/3 of all illnesses are healed by the magic of the placebo effect.

The opposite of a placebo effect is the "nocebo" effect, where a strong, powerful belief that we should be sick or are going to be sick manifests in reality.

In a paper published in the Journal of the American Medical Association, called "Nocebos Contribute to Host of Ills", the author states: "In the Framingham Heart Study, women who believed they are prone to heart disease were nearly four times as likely to die as women with similar risk factors who didn't believe."

The Nocebo Effect and ACE's

When we are exposed to an ACE much of the time, we are unable to process and release the impact of the traumatic event at the time. It becomes stored in the unconscious mind and in the body. World-leading expert in trauma recovery, Dr Bessel Van Kolk, discusses this in his book, entitled "The Body Keeps the Score: Brain, Mind and Body in the Healing of Trauma."

When traumatized, the body remembers. Time does not heal, but it conceals, and our biography, eventually, becomes our biology.

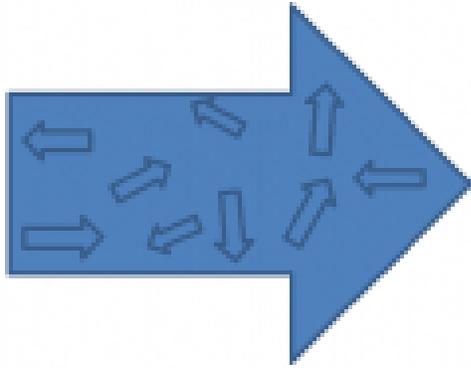
After an ACE, the traumatized part of the psyche becomes "disassociated" from us; meaning, it becomes unconscious. Often, we lose touch with the emotions related to it completely. However, there are parts of us that are angry all the time, crying all the time, fearful all the time, and so on, from the trauma.

These parts of us can have unconscious beliefs associated with them that may include feeling unworthy of health and well-being, feeling ashamed, and like we deserve to be punished with ill-health.

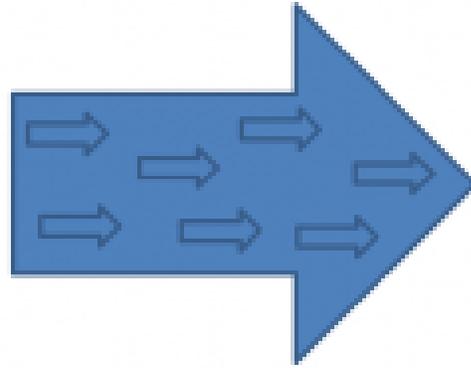
We may have a conscious belief that we can be well and recover from an illness (represented by the arrow in the diagram below), but this can be sabotaged by our unconscious belief systems linked to trauma from ACEs.



Unresolved Emotional Trauma



Resolved Emotional Trauma



Science does not yet fully understand how conscious and unconscious beliefs can change biology, cause spontaneous disease remission and so forth, but it happens all the time.

Many clinicians and healers have observed that unconscious beliefs and “conflicts of consciousness” that are not consciously processed can become symbolically expressed via pain and illness in the body.

