PTSD AND CHRONIC ILLNESS

More connected than we may think

BY MEGAN HUGHES, RCC

I'm sure this thought has occurred to you in your practice: "It amazes me how much this person has lived through, and they're still trying to move forward!" We hear stories of endurance, pain, and survival, and we may even remark on the cost our clients pay socially, emotionally, and mentally for their coping efforts.

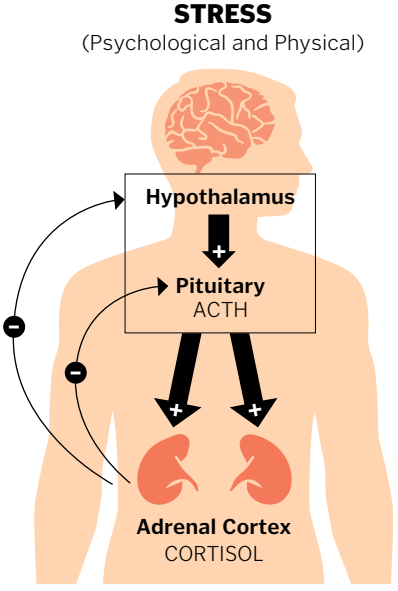
In my practice, when a client comes in with issues related to chronic illness or pain management, I expect to see symptoms associated with the diagnosed illness and a related amount of co-morbid anxiety and depression. But it's significant to me that almost all of my ill clients have histories of post-traumatic stress disorder (PTSD). My clients with "chronic" diagnoses carry weighty emotional burdens, usually for years. Eventually in therapy, they begin to understand that their illness connects to their histories.

THE SCIENCE BEHIND IT

Science — psychoneuroimmunology — shows clear, complex neural and physiological connections between psychological processes and the body's nervous and immune systems. We see that PTSD is actually a precursor for the development of chronic illness.

When a person experiences any stressful event, a cascade of changes occurs in the neuroendocrine, cellular, tissue, and organ systems. While these changes are necessary to rally resources to aid survival, the secondary effects of this process are silent and can be insidious.

In a healthy stress response, the body acts with rapid activation of multiple neuroendocrine pathways, including the hypothalamic-pituitary-adrenal (HPA) axis and the sympathetic nervous system (SNS). These changes act on the body rapidly to make resources available for the fight-flight response. Once the stressor concludes, the glucocorticoid hormone cortisol defines the end stage of the HPA axis. Secreting from the adrenal cortex, cortisol enters circulation and serves as negative feedback on the hypothalamus, ensuring the stress response ends; it is the "off switch" allowing the body to return to full homeostasis over the next couple of hours.



In PTSD, however, there are both measurable and subjective differences in the stress reaction: the brain appears to respond unusually. It has been suggested this may be a fault in the neurocircuitry, and that the brain experiences detrimental change in three crucial regions involved in stress response: an exaggerated amygdala response leading to an intensification of fear associations and responses; deficits in frontal lobe functioning, which mediates suppression of attention to the traumatic event; and deficits in hippocampal functioning, which provides appreciation for contexts of safety.[1] It has also been called "the biology of terror."[2]

Together, these changes significantly impede the trauma-extinction response. When brain systems defect, the

SNS activity can be reduced using trauma-focused and relaxation-focused treatments in tandem: EMDR, hypnosis, progressive relaxation, guided imagery, meditation exercises, and breathing exercises.

traumatic event is exaggerated and remains unprocessed, continuing to invade the present.[3]

This is precisely how PTSD is unique: the repeated reactivation of the traumatic memory in flashbacks with the associated stress response recreating subjective feelings of terror. The nervous system manifests both physiological reactivation and psychological distress. This means large amounts of stress hormones continue to be secreted in the body long after the danger has actually passed.[4]

LONG-TERM CONSEQUENCES

Another mechanism unique to the stress of PTSD regards the hormone cortisol itself. Research has found that cortisol levels are distinctly low in people with PTSD.[5] Since cortisol has a protective effect against PTSD,[6] clients with PTSD are physiologically unable to adequately inhibit the stress response with the "all clear" message. When the end stage does not produce effect, a state of fight-flight mobilization persists over time.[7] This means individuals with PTSD have a heightened experience of the terror of the event, repeated flashbacks with accompanying terror, and a deficient stress-extinction response.

As physiological reactivation repeatedly occurs, intense stress exposure disrupts the individual's internal psychophysiology by progressively sensitizing and "kindling" it to trigger in the process.[8] Over time, PTSD sufferers have an ever-diminishing capacity for stress-extinction responses, or any stress responses, and an ever-increasing risk of progressive escalation of reactivity.[9]

In fact, some suggest a history of abuse may "tune" the nervous system to be cautious and prepared for defensive fight-flight behaviours, even when real danger does not exist.[10] When stress hormones continue to secrete, they are subjectively experienced as anxiety, defensiveness, and terror. PTSD sufferers grow to be frightened of associations with the original trauma and then, over time, of their own reactions to those associations: sensory information that once provided useful factual input becomes unsafe. As the layers of experience build and associations of stress, trauma, and bodily responses compound, the individual's ability to accurately pick up and interpret information from environmental cues can become overwhelmingly confusing, frightening, and traumatic.[11]

Thereafter, PTSD sufferers remain dysregulated; they may alternate periods of overactivity with periods of exhaustion as their bodies suffer the effects of traumatic hyperarousal of the

nervous system.[12] This dysregulation has been demonstrated in research. Deficits in vagal regulation are present in perpetrators of violent abuse and are related to a variety of psychiatric disorders such as PTSD, generalized anxiety disorder, and depression.[13] It has also been shown that victims of abuse have state-regulation difficulties with a bias toward states that are defensive of threats.[14]

In the midst of unrelenting stress, PTSD sufferers develop coping mechanisms in order to approximate calm regulation. As we know, these coping mechanisms can either be adaptive or can worsen their physiological vulnerability. For example, victims of abuse may cope with overwhelming feelings of threat by paying excessive attention to internal sensory stimuli and by distorting environmental cues.[15] They are sensitized to reminders of subtle traumatic memories and become reactive to minor associations. This creates an escalating cycle of distress and defensiveness, predisposing an individual to negative affective appraisal and increasingly depressed mood.[16]

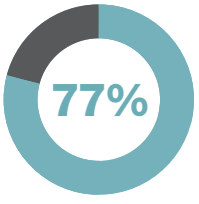
In the long term, poor coping strategies may result in devastating consequences: substance abuse, eating disorders, relationships fraught with violence and conflict, illness, and even suicide.[17]

By the time we see our PTSD clients, they may have been in a state of dysregulated stress and trauma reactions for years. This, in the long term, "wreaks havoc with their health."[18]

A CLEAR CONNECTION

When a body undergoes repeated cycles of stress responses, the immune system weakens to the point of dysfunction. This has been called the "kindling theory"— prolonged stimulation of HPA axis exceeds threshold limits, resulting in persistent hypersensitivity and a low tolerance to stress.[19] Changes in how neurons fire actually start to change the chemistry and functioning of the brain. That is, "neurons that fire together wire together"— chronic stress responses create neuroplastic changes that perpetuate these conditions, resulting in "upregulation" of the sensitivity of the brain.[20]

PTSD is one of the predisposing factors to development of this distorted state of upregulation. Evidence from developmental neuroscience suggests that early experiences can program the development of regulatory systems that are involved in the later development of illness.[21] Exposure to trauma increases the risk of developing chronic fatigue syndrome (CFS) between three and eight times, depending on the type. Emotional neglect and sexual abuse during childhood were the stressors most strongly associated with CFS.[22] And multiple traumas have a cumulative effect on physical health.[23] For each additional type of childhood trauma experience, the risk of developing CFS increased by 77 per cent.[24]



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The cumulative effect of stress and the corresponding wear and tear on the body has been called "allostatic load."[25] The role of allostatic load has come to be seen as an important risk for coronary arterial disease, fibromyalgia, irritable bowel syndrome, chronic fatigue, obesity, and many other health conditions. The majority of multiple-sclerosis patients in one study reported previous traumas, including sexual abuse, physical, and psychological violence, and complicated bereavement.[26] Another study shows individuals with PTSD as having the highest likelihood of developing chronic illness conditions and non-traumatized individuals had the lowest.[27] Further study demonstrated that the relationship between PTSD and chronic medical conditions was explained by the number of lifetime trauma experiences.[28]

It is usual for my clients with autoimmune disease to experience uncommon stress before a disease onset or flare-up. Remarkably, autoimmune diseases account for one third of common diseases in the US, below cancer and cardiovascular disease, affecting five to eight per cent of the population and rising. These diseases disproportionately afflict women and are among the leading causes of disability and death for young and middle-aged women.[29]

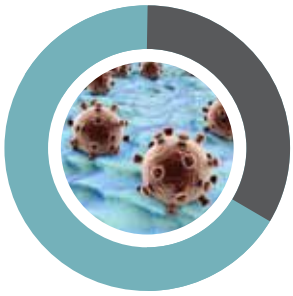
APPROACHES TO HEALING

As counsellors, it is imperative we recognize our clients' stress levels. Multiple stresses, multiple losses, traumas, poor coping skills, and adverse childhood events produce a physiological system that is vulnerable and primed for illness. The part we play as counsellors is in assisting clients to regulate their stress responses and reduce the stressors. Studies of effects of psychotherapy treatment

for clients with illness suggest it is essential PTSD symptoms are treated effectively and without delay to reduce associated psychological symptoms and to reduce the psychological stress burden associated with the neurological conditions of clients with illness.

In order to reverse immunological sensitivity, emotional and physical detoxification is necessary. Van der Kolk outlines "top down" and "bottom up" strategies to deal with the dysregulation of PTSD, and the same applies to chronic illness.[30]

"Top down" involves strengthening the brain's capacity to monitor the body's sensations and coping. This is best accomplished with mindfulness practice, which also increases awareness of internal cues and sometimes reconnects them with their bodies. However, it can be difficult and frightening at first and must be combined with relaxation and trauma-focused interventions to help the client emotionally regulate.



TREATMENT OF CHRONIC DISEASE CONSUMES 67% OF ALL DIRECT HEALTH CARE COSTS, AND COSTS THE CANADIAN ECONOMY $190 BILLION ANNUALLY — $68 BILLION IS ATTRIBUTED TO TREATMENT AND THE REMAINDER TO LOST PRODUCTIVITY.*

"Bottom up" strategies involve de-escalating the overactive nervous system. I reduce the SNS activity of my clients using trauma-focused and relaxation-focused treatments in tandem: EMDR, hypnosis, progressive relaxation, guided imagery, meditation exercises, and breathing exercises.

Approaching healing in chronically ill clients, and indeed working with clients who struggle with serious diagnoses, takes time and can be a delicate endeavour. The work involves not only acknowledging and mediating self-regulation needs, but also shifting the often-entrenched cognitive stance that accompanies years of defensiveness and isolation. While addressing physiological needs, we must interweave continual encouragement for the client to change maladaptive attitudes and beliefs, shift negativity and accept positive coping skills, build resources, and adopt new wellness and social support behaviours. ■

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*Public Health Agency of Canada. Against the Growing Burden of Disease. Retrieved Dec 5, 2016 from www.ccgh-csih.ca/assets/Elmslie.pdf

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