Inner Compass
ZEN OF MIND-BODY WELLNESS

Pain and the Brain

When we experience physical pain, the stress of the pain can lead to anxiety, depression and negative thoughts. At other times, stress, anxiety and depression can lead to physical pain and sensitivity which exacerbates pain. There is a close relationship between stress and pain. In many cases, the illness or injury cannot be fully explained by the medical condition and there is increased sensitivity to painful and non-painful stimuli. Chronic pain can also be associated with many emotional issues such as emotional stress, resulting in increased physiological arousal, where the mind has been primed for pain.

"The brain is the centre of the nervous system and integral to all experience" (Grant, 1998). There are many parts of the brain that are involved in pain processing. These include the Thalamus, Amygdala, Anterior Cingulate Cortex, Middle Prefrontal Cortex and the Hippocampus.

Neuroplasticity refers to the idea that the brain can be altered by experience. GABA, Serotonin and Norepinephrine are neurotransmitters than can be significantly reduced when the individual is exposed to severe stress. This impacts mood, sleep, energy levels and pain sensitivity (Grant, 1998). Severe stress has also been found to increase substance 'P', a neurotransmitter responsible for pain sensitivity. This may explain why people suffering from chronic pain or PTSD may experience dramatic fluctuations in mood, energy levels and mental functioning.

EMDR is thought to be an effective psychotherapy for PTSD and pain as it harnesses the concept of neuroplasticity. It has been shown to decrease physiological arousal and emotional distress, increase relaxation and promote distancing from the problem/s experienced. These results have also been shown to be maintained over time.

What can you hope to achieve through therapy?

- Reduction and/or elimination of associated pain
- Better quality of sleep
- Better compliance towards physiotherapy-based prescribed exercises
- Reduction in flare-up
- Improved connection with pleasure rather than pain, positive outlook, increased energy and increased capacity to handle pain
- Increased participation in physical activities
- Be less focused on their pain and their past
- More participation in social activities
- Less sensitivity to pain

The following studies demonstrate the efficacy of EMDR therapy as a treatment for pain:

http://connect.springerpub.com/content/sgremdr/8/2/66.full.pdf
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