Brain health fact sheet

Fact:

- The brain is where we process all experience, from emotional distress to physical pain.

- The brain is more than just a passive recipient of experience; the brain is also modified by experience.

- For example, brain scans of sufferers of chronic stress and/or pain show that they develop abnormal brain activity including biochemical imbalances, functional problems (eg; concentration and memory problems) and structural changes (eg; reduced hippocampal volume).

- These changes also tend to maintain and exacerbate pain. For example, reduced serotonin disrupts sleep, which causes fatigue, which reduces coping and so on.

- Over time 'pain-memories' form and the person continues to hurt long after the original stressor or injury has healed.

- The brain also makes little distinction between physical and emotional pain - there is an 80% overlap between the areas of the brain involved in the two.

- Fortunately, just as the brain can be modified negatively, the reverse is also true - if you know how.

- Some strategies for changing brain activity associated with pain and stress include;
    - SSRI anti-depressants (for depression, pain)
    - meditation (for stress)
    - exercise (for stress, depression, anti-ageing)
    - making friends with your feelings (important for all emotional problems)
    - learning how to self-soothe
    - Dual Attention Stimulus/bilateral stimulation (for emotional distress, pain)

- Research suggests that regular, targeted use of these strategies can alter brain activity associated with depression, anxiety, PTSD and chronic pain. For example, meditation has been found to de-activate areas of the brain involved in emotional distress; exercise has been found to stimulate neurogenesis in the brain; DAS/Bls has been found to create a 'distancing effect' and decreased physiological arousal.

- The discovery that you can 'change your brain change your pain,' means that anyone can learn how to feel better, with the right knowledge, time and effort.