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The War Brain

From soldier to “disordered.” From warrior to “outpatient.” From hero to “dischargee.” Too many of our military folks; our upstanding Canadian citizens and role models of patriotism and sacrifice are returning to us from overseas different in a way that is earning them labels like “mentally ill” or “mentally disordered.” They are referred to psychologists to talk about their depression, anxiety and their PTSD. They are taking medications and hoping like hell they can ascend from the depths of their memories, shut out the fury of their recent horrifying experiences and descend into a peaceful sleep routine sometime in the near future.

Most military personnel in Canada didn't ask to go overseas to fight someone else's war and none of them planned to come back with the haunting memory of it negatively affecting their lives. Are they “disordered, clinical, diagnosable?” Much research supports the fact that the human brain, like the horse's brain and every other animal brain, has a universal response to life-threatening circumstances. The “different” way that veterans have come back may be “normal” considering where they have been.

At the time of a threat, the human brain reacts similarly to that of a “prey animal.” Neuroscientist Mobbs (2007) conducted a fear-based experiment at the Medical Research Center in Cambridge, England. Mobbs (2007) had subjects play a video game in which they were being hunted by a predator while they were lying in an fMRI scanner. Mobbs found that people experienced a “freeze” response when they first perceived a threat and at this time, the frontal lobes of their brains showed the most activity. Forebrain activity prepares our bodies to act and thinks and strategizes ways to avoid being harmed. It also keeps our midbrains inactive which keeps us from moving so we can stay still and think. In the experiment, when the predator came closer, the forebrain functions were shut down and the midbrain functions were activated. The midbrain activates our “flight or fight” responses. Our fight/flight response is also controlled by the Sympathetic Nervous System which triggers over 1400 different physiological and biochemical changes in the brain when we perceive a threat, whether real or imagined. Psychological changes include feeling more aggressive, angry and fearful and a long term fight/flight response keeps us in a heightened state of fear and anxiety.

In the brain of a horse, we see the same brain patterns at play. Horses are prey animals and have had to survive in the wild. Whenever a horse experiences anything that is not immediately recognized as safe it triggers into a “freeze” response. This can be anything from a piece of flying plastic to a bicycle on the road. Their ancient brain circuitry results in them being easily startled and when they are, their heads go high into the air which triggers a chemical rush into their brains. The horses freeze and their synapses stop firing. They react by either running away or kicking, biting or stomping the object. They fight or flight. They are keenly “survival skilled” and this served their species well in the last several hundred thousand years.

Hyper-alert veteran and instinct-driven horse are both actively engaged in their primitive survival minds. They are on high alert and share a common understanding for the need for safety. Horses are great mirrors for human emotions. A sensitive horse will feedback feelings of fear, anxiety, sadness or anger in their body posture, movements, position of their heads, breathing, licking and chewing and much more. If people are hiding their true emotions or are incapable of understanding what they are horses will react to what is really happening and with the right informed and sensitive human helper, people can be assisted to address and deal with what is really going on inside their bodies. The process is not easy, foolproof or immediate but through working with horses, people in “war brain” mode can learn to understand that their condition is a normal response that requires understanding, awareness and a return to peace time.

Since 2007, the United States Department of Veterans Affairs has provided grants for qualified professionals to run equine assisted programs with returning troops from Afghanistan and Iraq. Preliminary results are suggesting that there are statistically significant rates of positive change for those involved in these programs (Wassom, n.d.). The Equine Assisted Growth and Learning Association evaluated treatment of members of the Georgia National Guard where deployments averaged two years or more. The study revealed that 100 percent of soldiers who completed equine assisted therapy had dramatically reduced stress levels. There are many reasons why horses are effective at helping veterans gain insight and understanding while decreasing the negative symptoms caused by combat zone experiences. This topic will be discussed in a follow up article.

Another alternate method for helping soldiers deal with the after effects of war is dog-assisted therapy. Dogs are being recognized as a comfort and support to warriors who have trouble sleeping, nightmares and other fear-based reactions that assisted them in surviving the war zone. The U.S. Defense Department funded a \$300,000 study at the Walter Reed Army Medical Center in Washington in 2009 that involved partnering servicemen and women who were still exhibiting survival reactions with trained service dogs. 39 people who were exhibiting “survival symptoms” were given service dogs and 82 percent reported a reduction in symptoms (Love & Esnayra, 2009). There are now more than 100,000 service dogs in the United States some of which are providing assistance to the Nation’s warriors by nudging them when they begin to show signs of panic attacks, calming them by reacting calmly to something the person perceives as a threat or validating the person’s heightened awareness if an actual threat is present. The dogs’ natural reactions to the environment help the combat survivor relearn how to interpret real from imagined threats and give him or her the immediate feedback s/he needs to either relax and calm or fight/flight. Pacelle (2010) describes the specific benefits of the service dogs to veterans’ as allowing for decreases in medication, increases in sleep and increases in social integration. Animal Assisted Therapy (AAT) is being recognized as an effective therapeutic modality for helping veterans positively readjust to peace time so much so that the first AAT symposium was held at Fort Myer army base in Virginia in late 2009.

Animal assisted healing methods are non-intrusive, non-medicated, natural ways to help our human brains return to balance. It is a fact that when some veterans return home from extended tours of duty there are sometimes unexpected feelings of isolation, anger, fear or grief. Their brains have been soaking in a hormonal bath for months, keeping them “on their toes” and in “high alert” to ensure their survival. Animal assisted programs run by qualified professionals are plentiful in Alberta. There are at least 25 such programs that have been in existence for as long as 15 years. If animal and equine assisted therapies have been researched and found to be unintrusive, effective helping techniques in the United States, then perhaps it is time that the awareness of this helping medium is brought forward to provide further assistance to our Canadian Forces personnel.

References

Wassom, B. (n.d.). Equine Therapy for Post Traumatic Stress Disorder (PTSD). *Disaboom*, Retrieved August 6, 2010 from <http://www.disaboom.com/disabled-veterans-general/equine-therapy-for-post-traumatic-stress-disorder-ptsd>