Part II:

In Part I of this article we talked about the research linking trauma and chemical dependency and started to explore the unique offering of equine therapy. In Part II we will continue exploring the gifts of equine work, particulary as it heals the traumatized brain.

Stuck in the Limbic Brain:

Play mobilizes the fight/flight/freeze system where trauma survivors may be "stuck" and then uses social engagement to moderate it (Porges, NICABM 2011). EFP/EAP offers a unique opportunity for play. We set up obstacle courses, play dress up with the horses, and move with them. We return to the caring faces of our witnesses who ask "how was that for you?" and really want to know. The process of having fight/flight/freeze stimulated and then moderated by social engagement is the essence of play as a healing experience.

Sometimes play experiences recreate the physiological state that resulted from the trauma -- a person becomes triggered. These states can be reflected in the here and now. The client can process that experience with the help of their witnesses and then try something new. The celebration of doing this without chemicals becomes a source of pride. Finally, the state of arousal can be experienced from a new perspective -- the physical state that saved the client's life.

Instinct and Feeling Out of Control:

In his book "Waking the Tiger (1997)," Levine suggests that trauma recovery is a rebalancing of instinct, feeling and cognition. Instinct is a right brain activity (Hamilton, 2011). Feeling comes from the midbrain -- an area also strongly implicated in addiction. Cognition occurs in the neocortex. When trauma occurs, it creates a build up of unresolved energy in the form of feelings, thoughts, and bodily sensations. Levine (1997) suggests that animals in the wild instinctively discharge the compressed energy resulting from trauma so they seldom have adverse symptoms. Horses assist us in this healing process.

Horses have a smaller cortex -- the planning, strategizing, and language part of the brain. What they have sacrificed in the left brain activities, they have regained in instinct, a right brain function (Hamilton, 2011). People will often report "feeling different" after simply observing or petting a horse. In making contact with a horse, a client's breathing and heart rate often become synchronized to it. Levine (NICABM, 2011) suggests that one day the prohibition against appropriate therapeutic touch will be lifted in trauma therapies because touch can be reassuring and can allow one to synchronize to a rhythm other than a trauma rhythm. Horses invite this touch without violating the psychotherapeutic boundary. As clients continue to interact with horses in more complex ways, they discover that they have more connection when they let go of cognition and move into instinct, the first language of horses. Their communication becomes more authentic also a significant process for ongoing sobriety. Siegel (2001) reports that

nonverbal emotional sharing involves output of the right hemisphere of each person in the interacting pair. He says this sharing is neurologically mapped so that the mind of each is mapped in the other. In this way the capacity for understanding of the other is expanded. Because in equine therapy the horse is not in trauma, the nontraumatized intuitive and instinctive presence is mapped in the neurological workings of the client. At the same time, the trauma reaction is mapped in the horse's brain. Because horses operate in the natural world, they know how to "shake off" traumatic experience. They are often seen to shake, flick their tails, and exhale strongly after an interaction with a traumatized client, releasing the trauma and returning to a state of wellbeing. Siegel (2001) further suggests that in a developing infant, self regulation is learned by interacting with another. We use the body/mind of the parent to regulate our own state until we develop the neural ability ourselves. Chemically dependent clients often have a history of early abuse or neglect, sometimes at the hands of alcoholic or addicted parents. Horses provide the opportunity to relearn self regulation.

The isolation of the addict or survivor can be diminished in connection with the horses, peers, and the therapist, probably in that order. Additionally, an observing ego is born. We become aware of ourselves while we are observed. "Attuned emotional communication within secure attachments leads to self regulation and the seed of compassion" (Siegal, 2001). This is a shift from the survivalist experience of fight/flight/freeze and from the self centeredness of the addict. Compassion implies connection to a broader state of being -- that of "I" and "Thou." This experience is broadened in the arena to a state of spiritual connection or spiritual experience. Levine (NICABM, 2011) explains that clients may connect with the collective unconscious when deeper healing is occurring. Clients in an equine arena often talk about feeling connected to a larger process. They may experience an altered sense of themselves as did one woman who donned a blanket and stick and went walking with her equine companion only to reflect later that she felt like the wise old sage on a long journey with her spiritual companion. She reflected that they experience transported her to a deeper place of belonging within the universe. Her healing journey took on a deeper meaning as it connected her to a greater whole. This could be called a spiritual experience.

Dis-integration of Brain and Body:

The integration of brain and body requires keeping the prefrontal cortex "online" while having midbrain experiences (limbic brain) which encompass sensation (the body). In trauma survivors and the chemically dependent, these aspects are dis-integrated. The sensory experiences of an equine process are many. Being outdoors with a large and beautiful mammal stimulates vision. People often refer to the smell of horses, particularly as it relates to positive memories. They experience safe and soothing tactile processes in touching the animal which stimulates the somatic cortex, the part of the brain that sends messages to the neural circuitry and muscles. This can aid the release of traumatic muscle memories. Being outdoors offers a different range of sounds than might be experienced in daily life --sounds ranging from birds chirping to the nicker of the horse -- sounds that are in a frequency which evokes safety and a sense of peace. In an interview regarding his research on the polyvagal system (Shoemaker, 2006) Porges describes

the vagus nerve -- a major nerve of the parasympatheic nervous system that calms and stabilizes. This nerve provides the ability to respond with facial expression which then allows us to discern sound. People who have undergone trauma have become highly attuned to predatory frequencies and lack attunement to the human voice. Social engagement, a critical component for healing, is diminished. If we can access the neural circuits that promote social engagement, healing is possible. Porges says "...strategies to create that sense of safety, like retreating to a quiet environment, playing musical instruments, singing, talking softly, or even listening to music" are helpful in creating a sense of safety (Shoemaker, 2006). Additionally, equine hearing is acute. We see their ears dancing as they gather information from the environment. Clients are directed to equine ears and asked "what are they hearing?" This invites connection to a deeper layer of sound, and recruits the neural circuits that may have been offline due to trauma.

Equine therapies create an environment which helps clients befriend sensation, emotion, and intuition and re-orient to the here and now. In the presence of an equine companion and witnesses, deeper healing can begin. While equine work is actually "brain" therapy, it brings survivors to the heart of healing.

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