BIOFEEDBACK AS A PHYSIOLOGICAL TREATMENT FOR TRAUMATIC PSYCHOLOGICAL INJURIES



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For over a century it has been argued that the psychological effects of trauma are often expressed as physiological changes in the biological stress response. Research supports that biofeedback can be used as a tool that increases an individual's awareness of their physiological response to overwhelming sensations and teaches them how they can take control of it. Literature on trauma suggests the need for physiological-awareness therapy, meanwhile literature on biofeedback indicates that it is a technique that focuses specifically on physiological awareness. Biofeedback is a therapeutic tool that uses sensors to record physiological changes in the stress response and provides an individual with feedback on their current bodily state. However, little research has linked the potential benefits of using biofeedback, in conjunction with other treatments, to help traumatized individuals recover. In 2006, van der Kolk pointed out that little is known about how people can learn to regulate their physiological arousal. He argued that a lack of arousal modulation is a dominant issue in traumatized individuals. In line with this, Hopper et al. (2007) posited that humans have a greater self-regulatory potential than other mammals but that the efficiency of regulation can be impaired in individuals with Post-Traumatic Stress Disorder (PTSD). van der Kolk (2006) also indicated that a traumatizing experience involves an individual's inability to engage in an action pattern that results in avoidance of the trauma. When a traumatic experience becomes unavoidable, a person can become overwhelmed at the futility of their situation and lose their capacity to use their emotions as guidelines for successful action. van der Kolk further suggested that therapeutic techniques need to be explored in the realm of reprogramming the automatic physiological responses evoked by emotions. Findings show that biofeedback targets an individual's awareness of their internal physical sensations, which have a reciprocal relationship with a person's emotional experience. The need for an individual to cope with trauma at a physiological level enhances the value of biofeedback as a necessary tool in this process. Since traumatized individuals have deficits in understanding their own physiology, biofeedback can give them the insight they require to regain their sense of self-control (Ogden, Minton, & Pain, 2006). Therefore the implications are that biofeedback can be used in conjunction with other trauma-related therapies because it addresses the underlying physiological issues of trauma.

References

Hopper, J., Frewen, P., van der Kolk, B., & Lanius, R. (2007) Neural correlates of reexperiencing, avoidance and dissociation in PTSD: Symptom dimensions and emotion dysregulation in responses to script-driven trauma imagery. *Journal of Traumatic Stress 20*(5): 713-725.
Ogden, P., Minton, K., & Pain, C. (2006). *Trauma and the Body: A sensorimotor approach to psychotherapy*. New York: W.W. Norton & Company. van der Kolk, B. (2006). *Clinical Implications of Neuroscience Research in PTSD* (Vol. 6). New York: New York Academy of Sciences.