

## **Abstract:**

Case study demonstrates positive outcomes for floatation therapy and traumatic brain injury.

### **Background**

Identification and treatment for traumatic brain injury (“TBI”) and concussion is currently in a state of rapid development and awareness, largely influenced by growing scrutiny in public forums like that the National Football League and the U.S. Military. Still, there is no consensus on the best methods in which to treat TBI.

This is a single subject floatation therapy and traumatic brain injury case study designed to examine the possible beneficial effects of one intervention, floating, to treat TBI. The subject is a 39 year-old female dentist with a moderate-severe traumatic brain injury following a major motor vehicle accident 14 months prior. She presents with symptoms that include fatigue, brain fog, confusion, depression, anxiety, sleep disturbance, headaches and other, directly related to her brain injury. She has not found any treatment or combinations of treatment that have been remarkably helpful.

### **Objective**

The purpose of this case study is to observe positive or negative effects of floatation therapy upon various physical, emotional, neurological and psychological aspects of an individual currently coping with a traumatic brain injury.

### **Method**

The intervention for the subject is floatation therapy through the use of a float tank. The fiberglass float tank is 9’ long by 5’ wide with a hinged lid that easily opens and closes. The tank is filled with 10” of a salt water solution (approximately 170 gallons), maintained at skin temperature (94 degrees +/- .5 degree). The salt water solution contains 1000 pounds of medical grade Epsom salt, or magnesium sulfate. The tank is housed inside a private room with a shower. To float, the individual disrobes, showers, inserts earplugs, turns off the room light, then and climbs inside the pod which has light and music control buttons. The individual climbs in the tank and transitions from kneeling or seated onto the back and face up. Once situated and floating effortlessly, the subject has controls for both light/complete darkness and ambient music or silence. In this case, each float lasted 60 minutes and was done in darkness and silence. The subject floated twice weekly over a 12 week period, for a total of 24 floats. A daily functional disability form was collected, as well as subjective, journal style entries.

### **Results**

The results demonstrate that two (2) sixty minute floatation sessions per week for twelve (12) weeks, resulted in significant positive functional improvement in a multitude of categories, including but not limited to fatigue, brain fog, confusion, depression, anxiety, sleep disturbance and headaches.

### **Conclusion**

This case study suggests that floatation therapy can help in managing multiple areas of physical, emotional and neurological dysfunction for individuals coping with traumatic brain injury. Furthermore, floating twice a week for 12 weeks appeared to promote rapid and sustained improvement for the subject. Floating, by itself or in combination with other therapies and lifestyle modifications, can improve quality of life and functional capability for those with TBI and concussions.