Floatation Therapy and Opioid Recovery A case study evaluating floatation therapy for opioid recovery Dr. David A. Berv, CCSP, Dipl.Ac. December 2018

Background

Each day, more than 130 people in America die after overdosing on opioids. In 2017 alone, more than 47,000 Americans died of an opioid overdose, including prescription pills, heroin and synthetic opioids, such as fentanyl. The same year, 1.7 million others developed opioid substance abuse problems. This serious public health crisis is a multi billion dollar problem, putting strain on the healthcare and criminal justice systems, not to mention the individual devastation. Comparatively speaking, this "disease" belongs on a short list for top causes of death in the US.

In response to the opioid crisis, the Department of Health and Human Services, on April 19, 2017, announced it would focus its efforts on new priorities, including access to treatment and recovery programs, promoting use of overdose-reversing drugs, support for research on pain and addiction, and better practices for pain management.² However, along with new medical professional prescription guidelines, fear of medical-legal action, heavy caseloads and the complexity of managing addiction, there is a tendency to keep practitioners focused on "standard of care" treatments. Thus, those in recovery or addiction often are unaware of alternatives or do not have access to them. The reality is that the opiate crisis is growing faster than the ability to manage it.

Within the context of opioid recovery, there is an increasing interest in finding alternative and integrative interventions that are safe, based on clinical research and shown to be advantageous without having to wait years for the end of large clinical trials.

Emerging alternative mind and body therapies such as floatation therapy are demonstrating value in complementing current recovery strategies, helping to bridge the alternative with the medical mainstream. Floatation therapy is worthy of exploration in order to better serve the needs of the recovery population.

^{1 &}lt;a href="https://www.drugabuse.gov/drugs-abuse/opioids/opioid-overdose-crisis">https://www.drugabuse.gov/drugs-abuse/opioids/opioid-overdose-crisis, revised January 2019.

^{2 &}lt;a href="https://www.hhs.gov/about/leadership/secretary/speeches/2017-speeches/secretary-price-announces-hhs-strategy-for-fighting-opioid-crisis/index.html">https://www.hhs.gov/about/leadership/secretary/speeches/2017-speeches/secretary-price-announces-hhs-strategy-for-fighting-opioid-crisis/index.html,

Objective

The objective of this clinical case study is to observe for positive or negative effects of eight (8) weeks of floatation therapy upon the intensity and frequency of common physical, emotional, behavioral and functional aspects related to individuals who are presently in opioid recovery.

A secondary objective is to see how long any perceived positive effects last, up to one month after the study, with no further intervention.

Method

Six individuals, all in recovery for various lengths of time, ranging from six months to more than a decade, were selected to participate in this case study during the holiday months of November, December, and through the first week of January. This holiday time period and length of time during the holiday, was purposefully chosen. Overall, the case study lasted eight (8) weeks in duration where the participants floated once a week for a total of eight (8) float sessions. There is no control group. The participants fit this set of criteria:

- (a) No prior history of floating;
- (b) Not taking opioids, including medication assisted treatment (MAT);
- (c) Involved in a variety of recovery programs including 12 step, counseling, and others;
- (d) Different stages of recovery ranging from 18 months to more than 5 years;
- (e) Currently employed;
- (f) Currently coping with fatigue, sleep disturbance moderate levels of anxiety, stress, depression, state of mind and other various issues with activities of daily living; and
- (g) a significant self-reported level of dysfunction in all of the defined and tracked issues.

The intervention for this case study involved "floating" in a 9' long x 5' wide fiberglass tank with a hinged lid, shaped like a large egg and filled with 175 gallons (10" deep) of a salt solution. This solution contains 1000 pounds of medical grade Epsom salt, or magnesium sulfate (MgSO4) and is maintained at skin temperature (approximately 94 degrees F). The tank is within a private room containing a shower. To "float" the individual disrobes, showers, inserts earplugs, turns off the overhead room light, then climbs inside the tank which has an internal light and music controls. The individual closes the float tank lid and then transitions onto a supine (face up) position and begins to float effortlessly.

A daily subjective survey was completed, using a numeric scale on a 0-10 continuum with descriptors (0=best or no problem and 10=worst or big problem). The two eight week daily survey was initiated on day one of the study, regardless of the day of the first float in week one.

For purposes of comparison, a baseline survey with the same daily survey questions was completed by the participant prior to the first float. There was a follow-up survey completed one month after the study was complete.

The accumulated data intended to include all 6 participants as a single group rather than individuals or a few groups.

There was minimal interaction with the participants during the course of the study, other than keeping them on track with the surveys and making sure there were no questions before and after floating. There was no cost for the participants and there was no financial gain from The Float Zone, where the case study took place. There are no other disclosures.

Results

While six individuals began the study, one subject, unexpectedly, dropped out halfway through the study for unknown reasons, leaving five full participants. The participants were sent daily surveys and 160 responses were collected over the course of eight weeks. To calculate the response to the float intervention, the data was averaged for all the participants from the final week of the study (Week 8) and compared to the initial baseline values for ten different categories, as seen below. All categories improved with the exception of "ability to handle triggers", which was a category that was scored very low (not very problematic) from the start. However, the other 9 categories improved between 30% and 73%. There were no negative effects.

State of Mind: Improved 65%

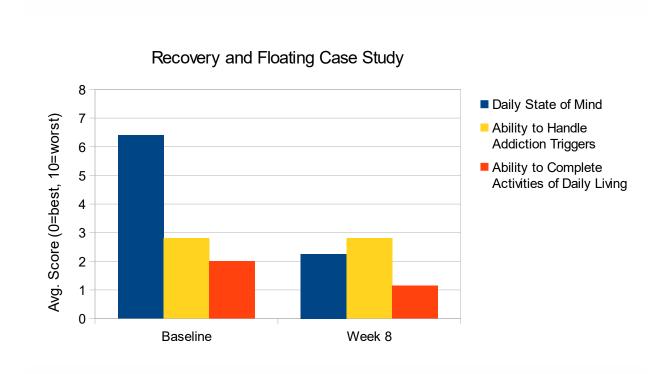
Evaluating the intervention of floating on *state of mind*, there was a **65% improvement** representing a drop from a baseline average of 6.4/10 to a week 8 average of 2.3/10. It is important to distinguish this category from others like anxiety level or stress level. To make it clear, the subjects all rated their <u>state of mindfulness</u>, or state of being present vs. distractedusing the following descriptors: 0=fully present, 1-2=minimally distracted and 9-10=terribly and constantly distracted state of mind. Over the weeks, there was an immediate, continued and lasting effect. This finding is a major takeaway from the study.

Affect /Ability to Complete Activities of Daily Living: Improved 43%

Evaluating the intervention of floating on the <u>affect /ability to complete activities of daily living</u>, there was a **43% improvement**, representing a drop from a baseline average of 2/10 to a 8 week average of 1.2/10. This was viewed by the subjects as a low priority, low level issue for all the participants, since many have been in recovery long enough that dealing with normal activities of daily living does not have the same meaning for an active addict or recently recovering individual. Nevertheless, moderate improvement was made here.

Affect /Ability to Handle "Triggers": No improvement

Evaluating the intervention of floating on the <u>affect /ability to handle triggers</u>, there was **no improvement**, representing a drop from a baseline average of 2.8/10 to a week 8 average of 2.8/10. Note that the baseline value was low to begin. This is the <u>only</u> area of non-improvement.



Level of Focus and Productivity at HOME: Improved 67%

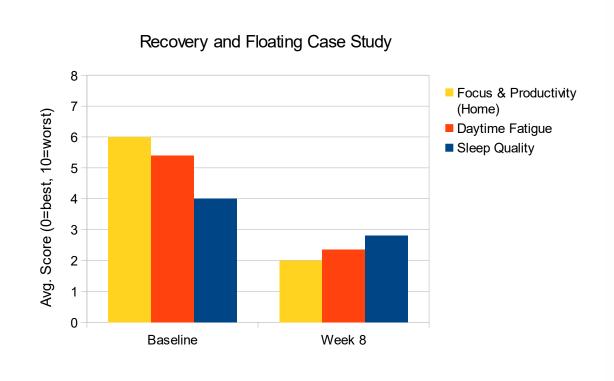
Evaluating the intervention of floating on *focus and productivity at home*, there was a 67% improvement, representing a drop from a baseline average of 6/10 to a week 8 average of 2.0/10. Graphically, this was combined with focus and productivity at work.

Quality of Sleep Last Night; Improved 30%

Evaluating the intervention of floating on *quality of sleep last night*, there was a 30% improvement representing a drop from a baseline average of 4/10 to a week 8 average of 2.8/10. The positive effects of improved sleep were seen in many other categories. Any improvement in sleep is worthy of note. Sleep affects everything.

Level of Daytime Fatigue: Improved 56%

Evaluating the intervention of floating on *level of daytime fatigue*, there was a 56% improvement, representing a drop from a baseline average of 5.4/10 to a week 8 average of 2.4/10.



Level of Focus and Productivity at WORK: Improved 66%

Evaluating the intervention of floating on *focus and productivity at work*, there was a 66% improvement representing a drop from a baseline average of 5.6/10 to a week 8 average of 1.9/10. To avoid repetition, this is essentially the same as productivity at home and is not included in these graphical representations.

Stress Level: Improved 73%

Evaluating the intervention of floating on <u>stress level</u>, there was an improvement of 73%, representing a drop from a baseline average of 6.4/10 to a week 8 average of 1.8/10. Stress, anxiety and depression were very significantly and positively affected. This is seen in the discussion section as well as in the participant testimonial videos that accompany this study.

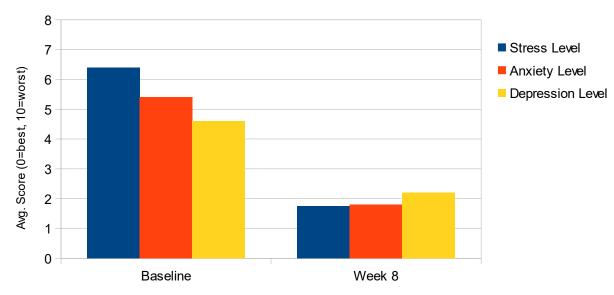
Anxiety Level: Improved 67%

Evaluating the intervention of floating on <u>anxiety level</u>, there was a 67% improvement, representing a drop from a baseline average of 5.4/10 to a week 8 average of 1.8/10.

Depression Level: Improved 52%

Evaluating the intervention of floating on <u>depression level</u>, there was a 52% improvement, representing a drop from a baseline average of 4.6/10 to a week 8 average of 2.2/10.

Recovery and Floating Case Study



Results Continued: Lasting Improvement

Below are graphs relative to the amount of <u>lasting improvement</u> without any float intervention, one month post-study. With reference to these lasting improvements, the original baseline scores are compared to both the end of the study (8 weeks) and then separately to the scores one month after the study (12 weeks).

None of the gains made during the course of the study returned even close to their original score after 1 month - with the exception of handling "triggers," which was unchanged. No further longitudinal tendencies were studied after one month post intervention.

State of Mind:

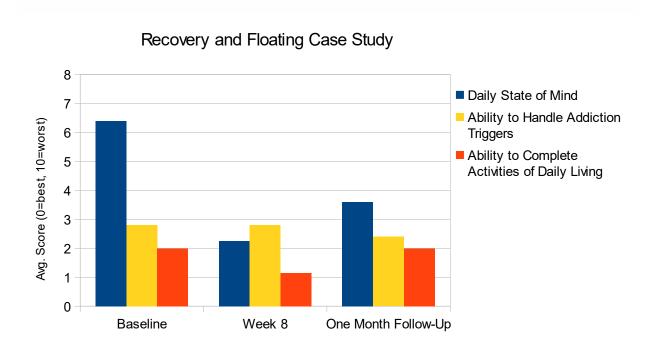
One month after the case study, 69% of the improvements in state of mind had remained. This represents a baseline to week 8 average of 64% improvement and a baseline to post-1 month average (no floats) of 44%. It is impressive and significant that participants still felt the effects of mindfulness after 30 days post intervention.

Affect /Ability to Complete Activities of Daily Living:

One month after the case study, none of the improvements in the ability to complete ADL'S had remained. This represents a baseline to week 8 average of 40 % improvement and a baseline to post-1 month (no floats) average, overall improvement of 0 %, meaning, it was the same as the original baseline score.

Affect /Ability to Handle "Triggers"

One month after the case study, 14% of the improvements in ability to handle triggers had remained. This represents a baseline to week 8 average indicating no improvement. However, from baseline to post-1 month (no floats), there was actually an improvement of 14%



Level of Focus and Productivity at HOME:

One month after the case study, 70% of the improvements in focus and productivity at home had remained. This represents a baseline average to week 8 average of 67% improvement and a baseline to post-1 month average (no floats) of 47% improvement.

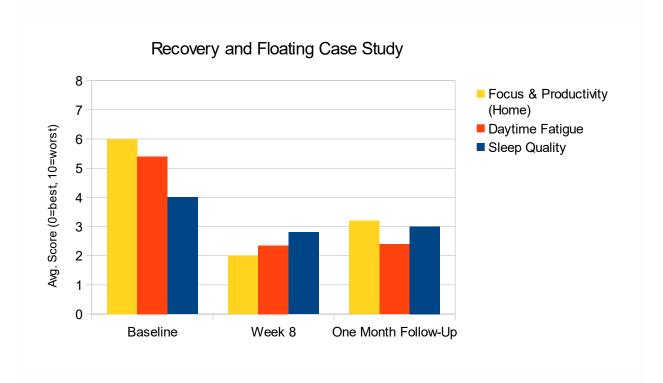
Quality of Sleep Last Night:

One month after the case study, 83% of the improvements in sleep quality had remained.

This represents a baseline average to week 8 average of 30% improvement and a baseline to post-1 month average (no floats) of 25 %. Similarly to mindfulness, it is impressive that gains in sleep quality had also remained strong a month later, also affecting everything else, including daytime fatigue, seen below.

Level of Daytime Fatigue:

One month after the case study, 100% of the improvements in daily fatigue levels had remained. This represents a baseline to week 8 average of 56% improvement and a baseline to post-1 month average (no floats) of 56%.



Stress Level:

One month after the case study, 69 % of the improvements in stress level had remained.

This represents a baseline to week 8 average of 72 % improvement and a baseline to post-1 month average (no floats), of 50%.

Anxiety Level:

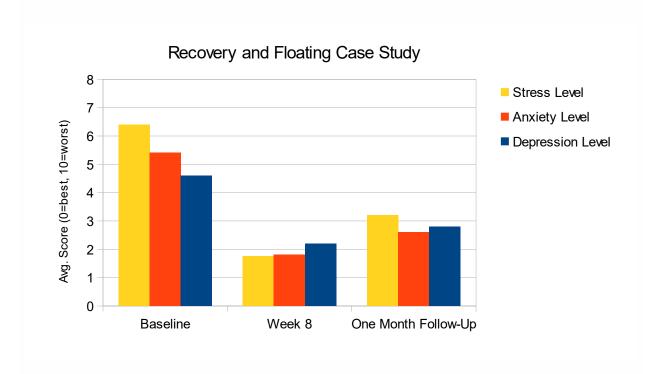
One month after the case study, 78% of the improvements in anxiety level had remained.

This represents a baseline to week 8 average of 67 % improvement and a baseline to post-1 month (no floats), of 52%.

Depression Level:

One month after the case study, 75% of the improvements in depression had remained. This represents a baseline to week 8 average of 52% improvement and a baseline average to post-1 month average (no floats) of 39%.

The following graph showing the results of Stress Level, Anxiety Level, and Depression Level sums up the entire study:



Conclusion

The results of the case study demonstrate that floatation therapy, or floating, has a direct, positive, and lasting effect on individuals in opioid recovery. Floating on a weekly basis for up to two months can decrease anxiety, stress and depression levels while improving mindfulness, sleep quality, energy levels, focus, productivity and ability to perform activities of daily living.

Additionally, all of the monitored categories had maintained their improvement to a significant degree one full month post-study when there was no further float intervention.

Individuals in recovery, medical professionals, mental health professionals and alternative health care providers should consider floatation therapy both by itself and in tandem with other mind/body modalities.

Discussion

In speaking to the participants after the study, it was easy to see how floating created a definite shift in their emotional states, including the general state of mind of feeling more in tune, more present, aware, and focused. All of the participants mention a lot of personal and work stress. As one participant states, "floating let me just breathe and be and with all the feelings of serenity that came over me, solutions to problems came into my mind and I knew I would make it to the other side with more peace and less stress."

Although the participants had been in recovery for some time, a comment was made that "the benefits of floating may also depend on where you are in recovery, especially in the beginning, the early stages, where floating could be an even bigger help to get over what seem like monumental hurdles."

One participant mentioned that after floating, he realized "how angry I actually was before the float and that I could feel lasting effects in my interactions where I was proceeding with more ease, less stress. For instance, when making phone calls after floating, it was easier to accept answers from others because the perspective was shifted and easier to be at peace with difficult discussions rather than having internal conflict."

While everyone began to notice effects after the first float, all participants felt that they began to make the biggest gains and to have the most noticeable lasting effects after the third float and beyond. They said that the effects of the floats lasted between 3-5 days and the longer that they floated, the longer the effects lasted. By the third week of the study, everyone was feeling multiple effects for almost a week that were then re-initiated by another float, which prolonged the effects further.

A huge reduction in anxiety was noted by all, that lasted for the entire study and beyond. All reported they were less stressed at work, at home, and would sleep better for 3-4 nights after a float. Everyone noted changes with sleep in some positive way. Everyone mentioned that the frequency of floating once weekly was helpful and that they all separately and unanimously reported that floating every 10 days to 2 weeks on an ongoing basis would be beneficial.

One participant had a unique issue providing distraction to his floats at first. This person had tinnitus (ringing in the ears) and in trying to battle the internal ear noise while floating, they tried different kinds of music and earphones/no earphones and initially getting frustrated and wished they had just not tried the headphones or different music and just dealt with the ringing in his ears vs. getting flustered. This affected his ability to relax into the floats at first, but got better over time as there was more familiarity. This subject also stated that the floats were good, and the effects were similar to meditating. It helped with his meditation practice.

This particular participant made the following comments:

"I have been in recovery for quite some time, but have been struggling with more with depression and anxiety now than I have for most of that time. I have not participated in peersupport, self-help recovery programs in many years. I am trying to address my much-worsened depression now with a renewed sense of intent and this has been a good step in the right direction. I don't know what my responses would look like on a line graph, but I suspect they don't show much improvement over time. I wouldn't attribute this to a failure on the part of the float regimen to help improve my focus/depression/etc.. I think there have been a fair amount of other variables over this time that have probably influenced my responses more. I think the float experience helped. It did take me several sessions to get settled into the experience, in large part because of my tinnitus and attempt to address it in regard to the float tank experience. I think once I moved past that, I felt like I was getting more out of the sessions. The question in my mind is whether I personally feel like the benefits I noticed were any greater than they would've been if I'd managed to meditate for an hour (which I never do) outside of the float environment. I don't know the answer to that. Maybe. I would have argued that the benefits are relatively shortlived, as I would expect from a similar meditation experience. However, having just completed this one-month follow-up survey, I think it's clear that I have not been doing as well since the sessions came to an end one month ago. So there may be some indication that it was benefiting me all along, in helping prevent things from becoming worse. Thanks again for the opportunity."

A similar comment from another participant who states, "Since the study I've found it more difficult to maintain my routine. I found floating very therapeutic, especially in regards to making my other things that support my recovery seem easier and less stressful. It was definitely easier to maintain a schedule of regular 12 step meetings, exercise and keeping in contact with mentors in recovery when I was floating weekly."

Another participant noted that she was in a bad place with depression prior to the study and the floating really helped. This same individual was one of two that had chronic pain, which was not tracked in this study due to the whole group not having it. She states that her pain diminished significantly, but began to return some weeks after the float series was over, despite her emotional gains still being there.

On the subject of pain, one subject states, "Thank you again for the opportunity to experience floating. Among many other things, floating helped with the management of pain from a leg injury. I was wearing lidocaine patches several days a week and sometimes two patches at a time before I started floating. In January of 2017, I broke my lower leg in a spiral fracture from a quick slip on the ice. I underwent two different surgeries. During the second procedure, a nerve

was damaged, causing neuropathy in the leg and foot which presented as chronic burning, tingling and numbness. I still have achiness at the site of the break.

During the 8 weeks that I came to float, I didn't need to wear the patches at all and I was able to stop taking my daily dose (sometimes doses) of Tylenol that I had previously been taking. The effects of the float seemed to last from week to week. I slept better and the pain was manageable. I haven't been back for a float in a few weeks and I've noticed that the pain is starting to come back but the calming effects of the floating experience have still stayed with me."

This participant further says, "As for the aspects of recovery - sobriety is so much more than just abstaining. For me, it's about mental health (relationship to self and thoughts), social health (relationship with family, friends, co-workers, strangers), sexual health (relationship with healthy partners) and physical health (relationship with food and body image). Anything less than that isn't true recovery for me. The 12th step in AA says '... to practice these principles in ALL our affair.' Floating helps all of these areas."

Another person mentioned that "many in recovery communities have stigmas against antidepressants and other medications that may be addictive in nature and choose not to take them. Many then live with higher levels of stress, anxiety and other because they do not want to be on any medications and it is nice to find a non-medicine driven option. similarly, many in recovery are familiar with the concept of safe spaces. It could be a house, a 12 step meeting, or in this case, a float tank and float experience, including the decompression in the lounge afterwards. I can clearly see that when individuals in recovery are subject to the stresses and anxiety that often triggers the desire to use, a float experience provides an unwinding with lasting effects where you know you are going to feel better about yourself afterwards and if things get crazy you feel more equipped to handle them."

Others similarly commented, "I fell asleep almost every time I floated and it was a comfort to know that floating became associated with a safe, comfortable time to take care of myself and take a nap."

"There are very high levels of anxiety and stress with recovery, where it is easy to make mountains out of molehills and perceive things in a magnified or distorted manner. Floating totally reduced this feeling."

As another testament to the serenity of the float experience, "I've been floating for two months; once a week - this was a fantastic experience! At the beginning, every float session seemed to leave me with a sense of serenity. There were other long lasting effects like waking up without being sore, feeling rejuvenated, and just a general sense of happiness. I believe floating could help anyone, especially those in recovery that just feel stress and angst throughout their day. I found myself feeling freedom from the anxiety that would plague me on a daily basis. The little stress that would keep me in bed for an extra hour. Today my spirits feel lifted! "

Lastly, one participant speaks his truth and sums up a lot of the intention for this study: "It has been roughly a month since the end of the eight-week case study in which I participated in at The Float Zone. At first, my floating experience was a bit strange. I found it difficult to relax while

being enclosed in the tank. But, because I had agreed to be involved in the case study I decided to keep trying. I did a bit more research on sensory deprivation as well as different forms of meditation, and thought that if I practiced, my experience might improve during the floats. I found that to be true. After 3 sessions at the Float Zone I found it much easier to relax and enjoy the experience. In my fourth float I almost immediately fell asleep and ended my session feeling completely refreshed and relaxed with a decreased level of anxiety, easier sleep, and less fatigue that lasted until my next float. The remainder of the case study went just as smooth. Being in recovery for me is not just about learning how to stay abstinent from drugs, but also on learning how to fill life with positive people and activities that nourish mental health. I sometimes find it difficult to fulfill a lot of the responsibilities that it takes to reach this goal of ongoing recovery instead on simple abstinence. After a long period of being completely motivated by drug use, and the dereliction and degradation that comes with active addiction, it is sometimes difficult for me to make that switch of putting my life in a positive direction even after over a year of being clean from any mood or mind altering substances. Recovery is hard work, and as someone in recovery I can say that activities like floating really add a level of stability and comfort to people suffering from substance use disorder. The therapeutic value of having something that will drastically decrease some common symptoms such as anxiety and depression like I've seen from having a regular routine of floating is incredible. I think that floating and the Float Zone is a game changer in a culture that is shifting towards the understanding and treatment of mental illness rather than scrutiny and stigma, and is an exciting new development in the recovery community. I think that floating could really benefit people in recovery. It certainly did for me."

The pervasiveness of the opioid crisis runs parallel to our current state of an "anxiety society," which only compounds the need for a solution. It is unlikely that anyone reading this case study research has been untouched or unaware of this national crisis. The many reasons for becoming addicted to opioids in the first place are both complicated and tied to the way we have managed pain, mental health, their relationship to each other and their collateral damage.

Floatation therapy and other therapies like it, needs more cultural awareness. Identifying and broadcasting effective treatment alternatives such as floating can provide a window of hope, optimism and better outcomes. The ultimate beauty of this reference to floating and opioid recovery is that it is an excellent example of a safe, effective and lasting intervention that positively leverages many therapeutic angles.