**Managing OCD with Vibrations and Frequencies**

Grace Roslovic

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Summary: *OCD is an incurable and somewhat illusive mental illness. While SSRIs and therapies are the medically approved recommendations for managing the illness, there are several characteristics about OCD that respond positively to vibrational healing of sound. In this paper, through research and my experience living with OCD, we'll explore the scientific reasons for how and why sound healing can help those with OCD live a more abundant life.*

"What if I didn't turn off the straightener and the whole building catches on fire?" I'd ask myself as I closed the door to my building. "I don't want this hanging over my head all day - I'll just walk back up the four flights of stairs and check just in case." For five years, I was convinced these thoughts were real. Waking up from a long night's sleep, I was already filled with dizzying brain chatter fantasies like the hair straightener, as if my brain was a blender and my eyes opening hit the thought "purée" button. Then, I was diagnosed with OCD - I felt the rush of relief over me. After years of silently struggling with the disease, I had an answer for my intrusive thoughts and unexplainable behaviors that had appeared abruptly in my mid 20s, and now, could manage the blender brain.

With the medical diagnosis came the news that the only medication available for OCD was SSRIs, or therapies, which weren't guaranteed to be the most effective over the long term. I knew that I had to learn more about this disease before turning to these options. Once I started researching on my own, I came to learn that my "blender" brain mode was actually a hyperactive gamma wave brain state, a primary symptom of OCD (1). Having a better definition for how OCD manifests in the body, I was inspired to seek out alternative treatments of sound and vibration to soothe my hyperactive "blender" brain activity, rather than become dependent on SSRIs. That's what's led me to my hypothesis that because hyperactive gamma brainwave state is a primary symptom of OCD, vibrations from sound for intrusive thoughts and rhythmic toning and movement for compulsions could become recognized alternative methods for managing life with the condition.

While there isn't an agreement amongst scientists about what causes OCD in the brain, the popular hypothesis suggests that the pathways that connect the orbitofrontal cortex or "OFC", that helps us process our environment for threats, with a collection of structures, known as the basal ganglia, which are important to developing habitual responses and movement, are hyperactive (2). In OCD, the OFC uses its senses to communicate that a fear or threat is present, then the pathways from the OFC to the basal ganglia are activated, all by anything that the OFC really communicates is a danger (2). Pair a hyperactive pathway of the OFC and basal ganglia with a complicated, convincing imagination - OCD has a breeding ground to thrive (2).

Which leads us to our understanding that OCD involves hyperactive gamma waves, we can look to vibrations, frequencies, and brainwave entrainment for opportunities to put the brain into another deep state and counteract the gamma hyperactivity. The optimal choices for different brainwave states include alpha, delta, or theta and have shown positive results for decreasing OCD symptoms. For example, in the Independent's article "Coping with OCD: How Alpha-Stim is helping to beat the 'bully,'" the subject Mr. Bass surrendered to his intrusive thoughts induced by OCD until using an alpha brainwave stimulation tool that "reduces anxiety levels and a calming of neuronal activity, so that the intrusive thoughts and urges for compulsive behaviors are reduced" (3). When there's consistent and proactive brainwave entrainment, OCD sufferers have an opportunity to be mindful of the greater neurological wiring that takes place in their frontal lobe, and how OCD can hijack the brain's rewards system and make its intrusive thoughts prioritized with rewarded compulsive actions.

Which leads to another important point about the types of music consumed, and how quickly OCD can latch on to music that has lyrics and meaning, leaving room for the intrusive imagination to run wild. For example, in a study on *Stuck Song Syndrome: Musical Obsessions and when to look for OCD* by members of the British Journal of General Practice, earworms went from catchy songs to be "considered intrusions: unwelcome involuntary thoughts… which can become considerable distress and impair daily functioning" (4). OCD and brain hyperactivity

can consume popular and catchy songs, morphing them into total impairments and feeding the hyperactive brain. So while not all treatments are created equal and can be easily sensitive or distracting, understanding each patient has a level of sensitivity can better help them find the right sounds that fit their best interests.

In addition to using sound to alter brainwave states as a way to combat OCD inspired intrusive thoughts, OCD also has its foothold in the mind when “triggers” of the disease are no longer rewarding. In most common cases of OCD, there is a cycle that the brain is thrusted into completing, where there’s a trigger, followed by an action, and completion of that action comes a reward. This is where OCD is most recognizable amongst those with germaphobia, where the trigger are the germs, the action for relief is excessively washing ones hands, and the reward is the relief itself of cleanliness. Looking at the human brain, if OCD doesn’t have a foothold in the basal ganglia pathway, where actions and the reward system are located, it can enhance disease management. With the basal ganglia being goal oriented, toning and chanting can become a vibrational wedge for OCD sufferers. Vibrational actions like toning and chanting have shown to help OCD sufferers redirect their brain’s reward mechanism towards healing, rather than detrimental actions. This rewiring is called habit reversal training, which, according to the ADAA “is effective to treating those who move or touch almost reflexively” (5). In a germaphobes case, when a trigger for germs arises, rather than turning to relief through hand washing, toning or chanting can act as a type of exposure therapy, also known as EBT, by distracting the brain from washing ones hands and tricking the basal ganglia into a soothing sounding reward. With a combination of EBT while still rewarding the brain’s systems, an OCD sufferer has the potential to gradually grow themselves out of a germaphobe condition once they’ve consistently experienced germs not harming or making them sick, contrary to what their OCD was manifesting.

We are fortunate that in this time and age that studies like those shown above are pointing us in the direction that there are answers for managing OCD and eventually there will

be ways to come closer to eradicating the illness itself. While there are many studies that would suggest that OCD be treated similarly to anxiety or depression, I believe that there are much more direct answers when we look at the brain and the relief it has of OCD when vibrations are exposed to it. I believe that vibrations and frequencies are just the beginning to help people turn their OCD imagination from thoughts that work against them to thoughts that can help motivate or enrich the lives of the person suffering from the illness.

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