

Quantification of CBD in Hemp Oils

Emily Hsu

MS Candidate in Forensic Science

Transcript:

Have you been stressed out all year because of the pandemic? Or maybe you have seen the number of people getting vaccinated slowly going up and you're having a little bit of social anxiety because you've forgotten what it was like to talk people outside of your family. Well, it's okay you're not alone.

A popular way people have been coping with anxiety and stress is using CBD products such as CBD lotion, CBD oils and even CBD gummies. CBD is a chemical compound found in plants that helps calm the nerves because it targets receptors inside your brain.

With New York State, recently approving the legalization of cannabis for recreational use, it is more important than ever to properly research what exactly is in the CBD products that will be on the market. Hemp oil is a common CBD product found in supermarkets and online. It is slightly different from CBD oil because it is made from hemp plant and not marijuana plant. Hemp plants have a lot of CBD but has little to no THC unlike the marijuana plant. THC is the chemical compound that gives user that "high" feeling. THC, however, is still illegal under federal law.

The goal of my study was to develop a method to detect and determine how much CBD is actually in 5 hemp oils that I picked up from Wegmans. This is important because products containing CBD are not currently regulated by the FDA. If oils really do not contain CBD, people should be aware that it may not achieve their intended effects.

So, I developed a method on an analytical machine to detect how much of the CBD compound was present in the five hemp oils. It turns out there was not much CBD in any of these 5 products. As you can see from the table, most of them weren't even close to what was written on the label. The last hemp oil on the table, oil didn't even have any CBD in it.

However, if you can look at the first hemp oil on the top left, in big red numbers it says 35,000 mg. The label technically doesn't specify exactly what the 35,000 mg account for. It just says 35,000 mg, it doesn't say 35,000 mg of CBD. For all we know, it can be 35,000 mg of hydroxychloroquine.

It is important to continue the study of hemp and CBD oils especially as more and more states are legalizing the sale of cannabis products. We need to be able to keep CBD companies accountable for what they put on the market, especially if people are intending to use their products to help relieve stress and anxiety.

By developing a method to accurately quantify CBD in oils, everyone can enjoy the many benefits that CBD can provide, especially since pretty soon my friends will be asking me to hang out.

Thank you.