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Educating Patients on Cannabidiol (CBD)

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Educating Patients on Cannabidiol (CBD)

Hinesburg, VT

Catherine Pratt, MS3

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UVMHC Family Medicine
Hinesburg

Problem Identification (2A)

- ▶ In 2016, the CDC reported an estimated 20.4% (50 million) of U.S. adults had chronic pain ^[1]
- ▶ The American Academy of Sleep Medicine estimates around 30% of U.S. adults have symptoms of insomnia ^[2]
 - ▶ And 10% of U.S. adults have severe insomnia with daytime consequences ^[2]
- ▶ Anxiety is estimated to affect 40 million U.S. adults according to the Anxiety and Depression Association of America, making anxiety disorders the most common mental illness in the U.S. ^[3]
- ▶ In a 2017-2018 survey of CBD users, 62% identified using CBD to treat a medical condition ^[6]
 - ▶ The top three conditions listed were pain, anxiety, and depression ^[6]
- ▶ The same survey found the odds of CBD use to treat a medical condition were 1.44 times greater among non-regular users of Cannabis compared to regular users ^[6]
- ▶ 36% of respondents reported CBD as specific or sole therapy for their identified medical condition ^[6]

Description of Need (2B)

- ▶ The demand for CBD products is increasing among American consumers ^[5]
- ▶ Many companies producing and selling CBD products have been making unsubstantiated drug claims about their products – including that CBD can treat, or cure, cancer ^[5]
- ▶ Due to a lack of FDA oversight and enforcement of CBD products, an estimated 70% of CBD products offered online could be mislabeled (with both under or over-labeling of the CBD and THC content) ^[5]
- ▶ The lack of meaningful regulation of cannabidiol products leaves consumers at an increased risk of using products with unspecified concentrations of CBD and thus unknown therapeutic value ^[5]
- ▶ There is a lack of general knowledge and understanding among consumers as to the scientifically substantiated evidence behind CBD therapy ^[5]



Cost Considerations

- ▶ Patients suffering from an anxiety disorder are 3-5 times more likely to go to the doctor and 6 times more likely to be hospitalized for psychiatric disorders ^[3]
- ▶ A 2016 Fiscal Report from the Vermont Agency of Human Services Department of Mental Health identified 'anxiety and other nonpsychotic disorders' as the most common ICD-10 mental health diagnosis code among outpatient services (52%) and community rehabilitation programs (29%) ^[13]
- ▶ In 2017, insufficient sleep among working adults in the U.S. was estimated to generate an annual economic loss between \$280 billion and \$411 billion ^[11]
 - ▶ This loss will range from \$299 to \$433 billion by 2020 ^[11]
 - ▶ And \$318 to \$456 billion by 2030 ^[11]
- ▶ By 2020, it is projected that retail sales of CBD products will have increased to \$1.9 billion ^[5]



Community Perspective and Support



- ▶ “Patients often ask what CBD can be used for, what dose to take, if it interacts with their other medications, if it could show up on a drug test, and if I can write them a prescription...patients that are already on the VT Medical Marijuana Registry can get access and expertise through dispensaries...but I don’t really have any great resources and wish I was better informed myself.”
- Mick Graham, MD
- ▶ “I had other friends with chronic pain that tried CBD and it really worked for them, so I figured I would try out what they had found helpful. I’m not sure it’s working for me yet, but there’s so many options available that I’m interested in trying something else. Most of my information has come from my own research, but I still have a lot of questions about how it works and why there are different formulations. I really like that it doesn’t give you the ‘high’ of THC though, so I’m hopeful I can find what is right for me.”
- Chittenden County resident and CBD user

Intervention and Methodology

- ▶ Created an educational trifold leaflet for patients to:
 1. Identify the current medical understanding of CBD
 2. Address its proven therapeutic potential to-date
 3. Pinpoint what to look for when purchasing CBD products
 4. Recommend dosing for specific medical conditions
 5. Correct common myths about CBD
 6. List local and online resources for more information
 7. Encourage conversations with health care providers
- ▶ Created a “dot phrase” (CBDPTINFO) on EPIC with similar information and additional resources for patients
- ▶ Shared phrase with physicians at UVMC FMH to include in patient’s “after visit summary”

Results/Responses

- Handout was offered for distribution at the UVMHC Family Medicine Hinesburg office, as well as to individual providers at that location
- “dot phrase” was shared with UVMHC FMH providers
- Response to handout and “dot phrase” was positive among providers
- No formal response data was received
- Providers appreciated the compiled resources in two formats to share with patients

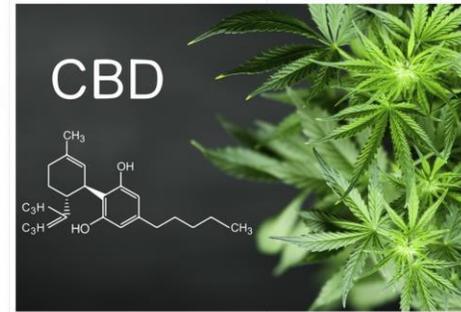
CBD Myths and Truths

Myth – CBD is not psychoactive
Truth – CBD works on the CNS, including the brain, and is a mood altering chemical.

Myth – A higher dose is better
Truth – It is better to start at a low dose and slowly increase over time. Starting too quickly at a high dose can lead to more side effects. There is a range of dosages that are therapeutic.

Myth – CBD has no side effects
Truth – While CBD has not shown to cause motor impairment or memory deficits like THC, it can cause fatigue, diarrhea, and weight change. It also can interact with other medications, check with your health care provider before you start taking CBD.

Myth – CBD is curative
Truth – CBD is a supplement, not a medical product and has not been proven to be curative. It can be a beneficial adjunctive or additional therapy.



More information at

- **Project CBD**
<https://www.projectcbd.org>
- **UVM's Free Cannabis Speaker's Series**
<https://learn.uvm.edu/program/uvm-cannabis-speaker-from-botany-to-medicine/>
- **Vermont Cannabinoid Clinic**
<https://www.vtclinic.com>
- **Ask your Healthcare Provider**

CBD WHAT TO KNOW BEFORE USE

What is CBD?

- Cannabidiol (CBD) is one of the chemicals, called cannabinoids, found in cannabis and hemp
- Active cannabinoids act on many systems in the body, including the central nervous system (CNS) and the immune system
 - CBD is considered “active” because it causes a noticeable effect or change on the body
 - Another active cannabinoid is delta-9 tetrahydrocannabinol (THC), which is found in marijuana and known for its psychoactive effects (i.e. “high”)
 - CBD does not produce those “high” effects and can actually work to decrease those THC effects

What does CBD treat?

- In adults, CBD has been shown to help with seizures, pain, inflammation, anxiety, and insomnia
- There is **strong** evidence CBD is effective for chronic pain and anti-nausea after chemotherapy
 - There is **some** evidence CBD is effective for improving short-term sleep outcomes in adults
 - There is **limited** evidence CBD is effective for anxiety and PTSD symptoms
 - There is **no/insufficient** evidence CBD has an effect on cancers, dementia, or achieving abstinence in the use of addictive substances



There is currently no good manufacturing practice (GMP) oversight for cannabis or hemp products. So cannabinoid concentrations, chemical composition, shelf life, storage, and degradation varies widely between manufacturers and dispensaries

What about dosage?

- Rule of thumb: “start low, go slow”
- **Chronic Pain:** start with 10 mg, can increase up to 25 mg (5 mg/10 mg – 10 mg/25 mg)**
 - **Insomnia:** start with 20 mg, can increase up to 40 mg (2 mg/20 mg – 5 mg/40 mg)**
 - **Anxiety:** start with 10 mg, can increase up to 25 mg (5 mg/10 mg – 10 mg/25 mg)**

*Studied therapeutic doses range from 5 to 50 mg
**a combination of THC and CBD has been shown most effective, CBD diminishes the “high” properties of THC (THC/CBD combo dosage)

My neighbor grows hemp...can I use that?

Federal regulations require hemp products to contain less than 0.3% THC, but this is not regularly enforced in Vermont

When buying products:

- Choose American-grown products using “full spectrum” CBD-rich hemp extracts
- Pay attention to labels listing amount of CBD or THC per serving, not just for the whole bottle
- Read the full ingredient list to avoid poor quality products with added substances (i.e. corn syrup, artificial colors, artificial flavors)
- Beware of companies making explicit health claims, which is illegal
- Contact companies with any questions and expect answers, if no response move onto another brand

A Medical Marijuana Card is required to visit dispensaries in Vermont, but not for retailers of hemp-based CBD products



Evaluating this Intervention

Effectiveness

- ▶ Due to time constraints, the effectiveness of this intervention was not assessed
- ▶ Future assessment could involve:
 - ▶ A survey to patients at FMH regarding:
 - ▶ Ability to understand handout
 - ▶ If handout provided new information
 - ▶ Whether handout resulted in change in CBD habits
 - ▶ If they felt more confident finding information on CBD and purchasing CBD products
 - ▶ If they were more likely to discuss CBD with their healthcare provider(s)
 - ▶ A survey to providers at FMH regarding:
 - ▶ If patients questions/understanding of CBD changed following handout distribution
 - ▶ How frequently they were using the EPIC “dot phrase”

Limitations

- ▶ Limited follow-up to evaluate handout utilization and response
- ▶ Effectiveness is dependent on adequate distribution to patients
- ▶ Effectiveness is dependent on patient reading handout or after visit summary
- ▶ Effectiveness is dependent on English language literacy
- ▶ Handout and “dot phrase” limited to introductory information on CBD
- ▶ Impossible to know whether patients would have found provided information independently

Recommended Future Interventions



Update and expand handouts in 1 year - due to high turnover rate of evidenced- base published studies on CBD



Distribute handout to other family medicine offices and providers in Vermont



Distribute handout to other providers not associated with family medicine



Compile data regarding CBD use among Vermont patients



Connect more patients and providers with Paul Jerard at the Vermont Cannabinoid Clinic and Ada Puches at the Champlain Valley Dispensaries

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