CHRONIC PAIN

Clinical Summary

by HARVEST MEDICINE

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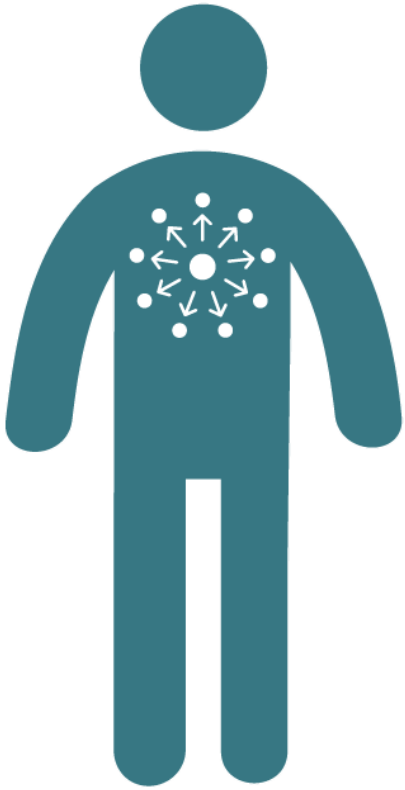
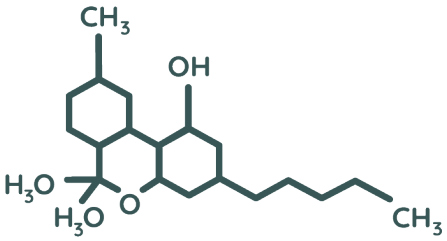
Chronic Pain

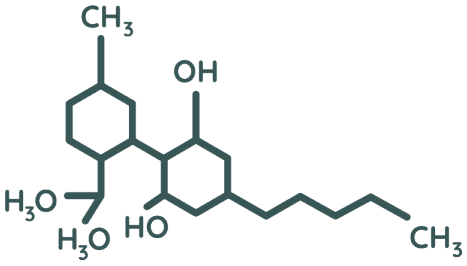
Chronic pain is defined as pain that lasts or recurs for more than 3 months.[1] In 2019, one in four Canadians aged 15 or older had chronic pain, and economic costs associated with it (healthcare burden, loss of productivity, and absenteeism) were estimated to be $40.4 billion.[2] Current treatment involves different modalities, such as drugs, physical therapy, and acupuncture.[3] It is now hypothesized that cannabinoids such as tetrahydrocannabinol (Δ9THC) found in medical cannabis (MC) may be an effective treatment for pain as it suppresses inflammation and mitigates pain by activating cannabinoid receptors in the central nervous system.[4]





Tetrahydrocannbinol (THC)

The promising role of THC-based treatment in chronic pain is supported by clinical findings. A randomized, double-blind, placebo-controlled study compared the analgesic effects of 4 different strengths of THC (0, 2.5, 6.0, and 9.4%) in patients with chronic neuropathic pain that have not used cannabis during the year before the study.5 Patients reported lower average daily pain intensity on 9.4% THC than on 0% THC (difference= 0.7), and higher strengths of THC were associated with improvement in sleep quality and mood disorders, such as anxiety and depression.[5] In another study, adult patients with chronic non-cancer pain at 7 clinical centres across Canada were recruited and followed for 1 year.[6] Those who used THC-based MC product (containing 12.5 ± 1.5%) as part of pain management experienced a significant reduction in pain intensity over 1 year (change= 0.92, 95% CI= 0.62 - 1.23) compared to the control group, who did not use MC (change= 0.18, 95% CI= -0.13 to 0.49).[6] Also, cannabis users reported greater improvement in physical function at 6 months and 1 year.[6]



Cannbidiol (CBD)

There is emerging evidence to show that cannabidiol (CBD), another cannabinoid commonly found in cannabis plants, may also be effective for pain relief. In a randomized controlled study, patients with advanced cancer and opioid-refractory pain were randomized into 4 groups to receive three different doses of nabiximol (a cannabis product that contains a combination of CBD and THC) or placebo.[7] The results showed that low and medium doses of nabiximols significantly decreased the average daily pain (p= 0.008, 0.038, respectively), and people receiving nabiximol treatments as a group achieved better pain relief compared to the placebo group (p= 0.035).[7]

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Having considered efficacy, it is important to look at the safety profile of MC. While higher strengths of THC were associated with greater pain reduction, they were also associated with a greater number of adverse events, the most common ones being headache, dry eyes, burning sensation, and dizziness.[5] However, long-term follow-up of THC users revealed that it did not increase the risk of serious adverse events.[6]

The World Health Organization (WHO) acknowledges that CBD is generally well tolerated, and although adverse effects, such as hepatic abnormalities, fatigue, diarrhea, and somnolence have been reported, they may be a result of interactions with patients' other medications.[8]

Specialty cannabis clinics are focused on helping patients navigate and choose the best cannabinoid-based treatment for their condition(s).

At Harvest Medicine, of the 19473 patients that received medical cannabis pain management treatment, 83.44% of the respondents self-reported that MC somewhat positively or very positively impacted quality of life (figure 1).[9] With the recent decision by the World Health Organization to recognize chronic pain as a distinct medical condition and its earlier report describing a favourable safety profile of CBD,[2,8] it is expected that MC will play a larger role in pain management.

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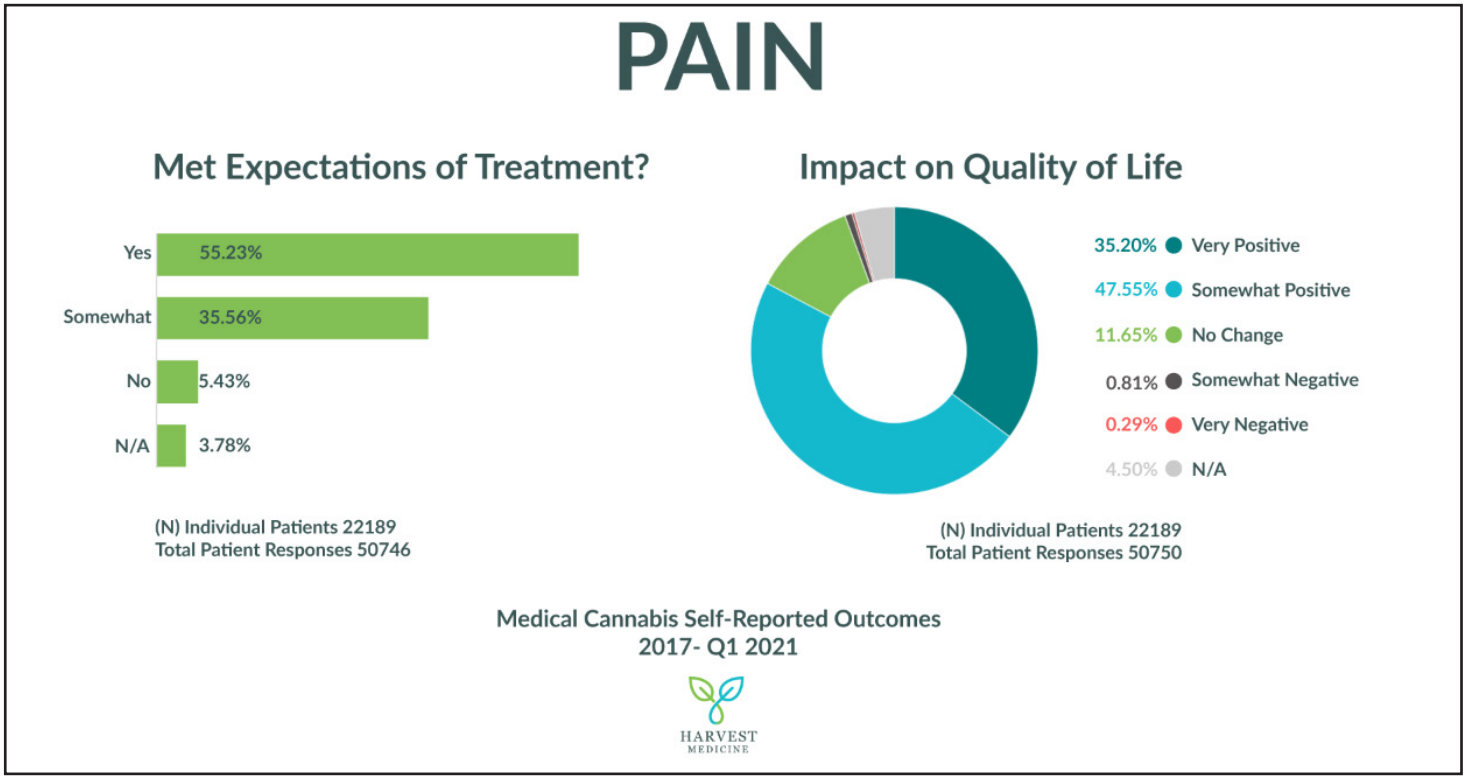

Figure 1 Harvest Medicine. (2021). Patient self-reported outcomes for pain[8]

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