**Use of Oral Cannabidiol for Arthritis Pain in a Community Pharmacy Setting**

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**Background**: Arthritis is a painful burden for millions of people. The medications available to treat arthritis often have unwanted side effects or patients experience incomplete relief of pain. Cannabidiol (CBD) has shown in clinical trials that it may decrease the inflammatory processes that cause arthritis-related pain. Pharmacists are well-positioned to support patients dealing with arthritis pain, including recommending dietary supplements such as CBD, as appropriate.

**Objective**: To measure changes in arthritis symptoms, quality of life (QOL), and CBD perception in patients with arthritis using oral CBD.

**Methods**: This was aprospective uncontrolled longitudinal cohort study conducted at an independent community pharmacy in a metropolitan area of North Carolina from October 2021 to February 2022. Patients were included if they were 18 years or older, had self-reported, confirmed medication history of treatment for, or diagnosis code of rheumatoid arthritis (RA) or osteoarthritis (OA), and if they were enrolled in (or willing to enroll in) Medication Synchronization at this pharmacy. They were excluded if they were taking any drug that would be significantly affected by the co-administration of CBD, had a history of liver disease, had a CBD allergy or extreme sensitivity, or were already using CBD or marijuana. After recruitment and informed consent has been received, eligible patients filled out a baseline survey including questions about symptomology, QOL, and CBD knowledge and perception. Then, CBD was added to the patient’s profile, filled with monthly sync medications, and the patient began using the product per the dosing schedule. The dosing schedule is as follows: 1 dropperful at night for 7 days, then 1 dropperful in the morning and at night for 7 days, then 2 dropperfuls at night for 7 days, then 2 dropperfuls in the morning and at night thereafter. Up-titration stops when the patient begins to feel relief. During the study period, each patient had a bi-weekly follow up with a pharmacist and also received bi-weekly surveys in order to capture trends in study metrics and any side effects if they happened. Data were analyzed using descriptive statistics.

**Results**: Demographically, the mean age was 66, 65% of the study population was female, 88% of the study population had OA, and 59% of patients were taking another form of pain relief for their arthritis. Mean arthritis symptom scores decreased (improved) from a score of 21 to 16 in the OA group, and from 15 to 13 in the RA group. In the OA group, 71% of patients had symptom improvement, while 50% of patients in the RA group had symptom improvement. 44% of patients experienced an improvement in QOL, 37% of patients experienced no change in QOL, and 19% reported worsened QOL with the regular use of CBD. There was an improvement in patient understanding of CBD, patient confidence in community pharmacists’ ability to answer questions about CBD, and a slight improvement in patient’s trust that a CBD product would be high quality and effective for their needs. There was no change in patient confidence that CBD is safe despite not being regulated by the Food and Drug Administration, and there was a slight decrease in support for the sale of CBD over-the-counter.

**Conclusion**: CBD is a natural product that could be an effective option for the relief of arthritis pain and for improving QOL, but controlled trials are needed to confirm the true utility for arthritis and to establish a more standardized dosing. Additionally, pharmacists are a key component in helping our communities to understand CBD and to utilize it safely and efficiently.