

Treatment of Poppy Seed Tea Dependence with Buprenorphine in a Telehealth Practice: A Case Series

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Research Objective

- Poppy seeds are a legal source of opiates that are used by some individuals with opioid use disorder, either as substitution for opioid use, as a home remedy for treating withdrawal, or as a primary use disorder.
- In large quantities, poppy seed tea (PST) can lead to opioid dependence, and if doses are high enough, overdose.
- PST dependence can be treated with buprenorphine.
- In this report, we describe our experience with patients treated with buprenorphine for PST dependence.



Study Design

- The setting is a large telehealth-only OUD treatment provider operating in about 30 states at the time of study.
- We conducted a chart review of newly enrolled patients whose enrollment note contained the word “poppy” and selected patients that primarily used PST over other opioids.
- Patients were identified if their initial visit occurred between January 1, 2021 and December 31, 2022.
- Outcomes:
 - initial and maintenance doses of buprenorphine for treatment
 - retention in treatment

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| Patient | Gender | Age | State | Buprenorphine dosing (mg) | | | First Urine Drug Screen* | Opioid History | Other Opioids Reported | Treatment Status |
|---------|--------|-----|-------|---------------------------|-------------|--------------|--------------------------|---|----------------------------------|--|
| | | | | First Dose | Stabilizing | Last/Current | | | | |
| 1 | M | 28 | PA | 2 | 4 | 4 | bup+ | Poppy seeds, total daily use 1 shaker bottle once per day | | Active in treatment |
| 2 | M | 28 | MI | 2 | 12 | 12 | bup+, thc+ | Opioid pills > heroin > kratom > poppy seed tea > oxycodone | | Unplanned elective - lost to follow-up |
| 3 | M | 32 | CO | 1 | 20 | 16 | bup+ | Oxycodone > kratom > poppy seed tea | | Unplanned elective - lost to follow-up |
| 4 | F | 34 | AL | 4 | 22 | 8 | bup+ | Morphine and poppy pods - drinks as tea, 200 ml 4 times a day | oxycodone | Unplanned elective - patient self-weaned (Alabama patient) |
| 5 | F | 34 | WA | 16 | 24 | 20 | bup+ | Prescription opioids > poppy seed tea, with total daily use of unsure (0.7-2.2 pounds) divided 2 times daily. | | Unplanned elective - for financial reasons |
| 6 | M | 35 | TX | 4 | 20 | 12 | bup+ | Poppy seed tea, total daily use 2 pounds divided by 3 times daily | Hydrocodone, oxycodone, morphine | Active in treatment |
| 7 | M | 37 | VA | 2 | 8 | 4 | bup+ | Poppy pods | | Planned elective - weaned off buprenorphine |
| 8 | M | 37 | NC | 2 | 16 | 12 | bup+ | Hydrocodone > poppy seed tea 3-4 times daily > current: morphine; additional oxycodone | morphine tea | Unplanned elective - for financial reasons |
| 9 | M | 39 | TX | 2 | 10 | 8 | bup+, bzo+ | Poppy seed tea (1 pound divided 2 times daily) + kratom | | Unplanned elective - patient requested discharge |
| 10 | M | 39 | AL | 4 | 24 | 16 | bup+ | Hydrocodone, taken orally, with total daily use of 1200 ml of poppy tea divided 4 times daily. | Oxycodone | Unplanned elective - patient self-weaned (Alabama patient) |
| 11 | M | 42 | PA | 2 | 16 | 16 | bup+ | Hydrocodone > fentanyl > poppy pods > oxycodone | Oxycodone | Provider discharge for need of higher level of care |
| 12 | M | 42 | CA | 2 | 16 | 16 | bup+ | Poppy flower, taken orally | | Unplanned elective - patient requested discharge |
| 13 | F | 42 | WA | 2 | 20 | 8 | bup+, bzo+ | Poppy seed tea (3-4 cups daily) + hydrocodone | | Active in treatment |
| 14 | M | 46 | CA | 2 | 16 | 16 | bup+ | Started w/ prescription pain meds > poppy seed tea | | Unplanned elective - lost to follow-up |
| 15 | M | 49 | IL | 2 | 16 | 8 | bup+ | "Uncontrolled performing enhancing drug" > street opioids > kratom > current: poppy seed tea | | Active in treatment |
| 16 | M | 49 | TX | 2 | 16 | 0.5 | bup+, thc+ | Poppy seed tea, total daily use of 2-4 cups a day, taken once/day | | Planned elective - weaned off buprenorphine |
| 17 | M | 54 | TX | 2 | 24 | 24 | bup+ | Hydrocodone/oxycodone (rx no longer refilled) > poppy seeds ~1/2 cup daily to avoid withdrawal | | Unplanned elective - patient worried about telehealth availability |
| 18 | M | 61 | TX | 2 | 16 | 8 | bup+ | Poppy pod tea, daily 14-20 grams | | Active in treatment |

*Note that 1st urine drug screen usually occurs 7-14 days after 1st visit. THC was not universally screened for.



Principal Findings

- **18 patients identified as having primary PST use disorder** were included in this case series.
- Patients resided in 10 different states.
- **Median starting buprenorphine dose was 2 mg** (interquartile range (IQR) 2-2.5 mg).
- **Median stabilizing dose of buprenorphine was 16 mg** daily (IQR 15-20.5) mg.
- As of June 2023, five patients (27.8%) were still in active treatment, mean 475.2 (standard deviation (SD) 239.9) days.
- Of the thirteen patients who discontinued treatment, **treatment duration was mean 290.7 (SD 231.0) days.**



Conclusions

- PST use disorder is treatable with buprenorphine with doses similar to treatment of other opioid use disorders.
- Prescribers tended to start with a lower dose (median 2 mg) and then increase.
- The median stabilizing dose was similar to what would be expected for treatment of other opioid use disorders.
- Some patients are able to be treated in the telehealth environment, but there are barriers including financial (i.e., insurance) and state laws which hinder access.
- This is an uncommon use disorder that may present in some addiction treatment practices.

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