

Prevalence and Predictors of Substance Use in a Chronic Pain Outpatient Clinic: A Retrospective Cohort Study

Morena Koorie BS, David Agbato BS, William Kindschuh MD, Andrew Aboujaoude MD, Leena Mathew MD



Introduction

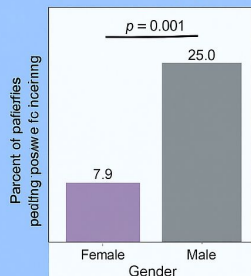
- Opioids remain essential for pain management but contribute to addiction and overdose crises. In 2022, 82,000 opioid-involved deaths occurred in the United States despite declining prescription rates.
- Chronic pain affects a growing portion of adults, with 61.4% reporting persistent pain between 2019 and 2020.
- Polysubstance use increases addiction risk. About 72.8 percent of opioid-positive patients also test positive for another substance.
- The CDC recommends routine drug screening in chronic pain clinics to identify risk patterns and guide safer prescribing.

Methods

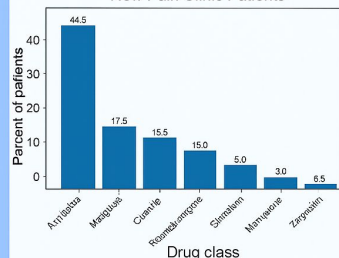
- Study Design: Retrospective cohort study of 200 new patients (July 2022 to February 2024) at Columbia Pain Center. All patients underwent saliva or urine drug screening upon intake
- Variables: Demographics including age, sex, race, ethnicity, and prior pain medication use
- Outcome: Positive drug test for opioids, marijuana, or other substances
- Analysis: associations between demographics and substance positivity were evaluated using regression analysis

Objective: to determine the prevalence and demographic associations of substance use among new patients in a chronic pain outpatient clinic

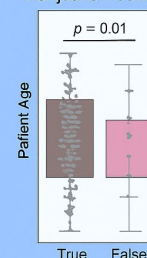
Marijuana Positivity by Gender



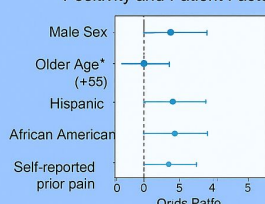
Prevalence of Drug Positives Among New Pain Clinic Patients



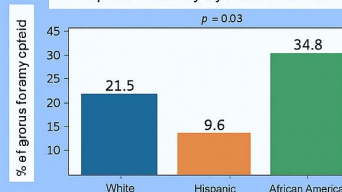
Patient Age and Marijuana Positivity



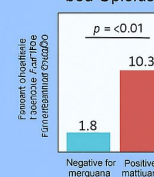
Regression Analysis of Marijuana Positivity and Patient Factors



Opioid Positivity by Race and Ethnicity



Marijuana Positivity and Positivity for Non-Prescribed Opioids



Results

After analyzing 200 drug screens:

- 44.5% of patients tested positive for at least one drug, with opioids and marijuana most frequent (17.5% and 14.5%, respectively).
- Gender:** Marijuana positivity was higher in males (73%) vs females (27%).
- Age:** Younger patients were more likely to test positive for marijuana ($p < 0.01$).
- Race/Ethnicity:** Opioid positivity was higher among White patients (21.5%) than African American patients (9.6%).
- Co-positivity:** Marijuana was the most common co-detected substance.

Discussion

- Substance co-use remains common in chronic pain patients despite prescription monitoring.
- Younger age and male gender were associated with higher marijuana positivity.
- Racial differences in opioid positivity suggest potential disparities in prescribing or screening.

Limitations:

- Single-center
- Retrospective design.
- Limited sample size

References

Ahmad, F. B., Rossen, L. M., & Sutton, P. (2021). Provisional drug overdose death counts. National center for health statistics. 12.
Olson, M., Wall, M. M., Liu, S. M., & Blanco, C. (2018). Cannabis use and risk of prescription opioid use disorder in the United States. American Journal of Psychiatry, 175(1), 47-53.