



# Beyond the highs and lows: Investigating the impact of prenatal THC use on postpartum depression rates

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## Background

### Postpartum depression (PPD)

- ❖ 15-20% affected
- ❖ 2 weeks to 1 year post partum (PP)
- ❖ Treatment: medications, therapy

### Tetrahydrocannabinol (THC)

- ❖ Considered “natural” remedy
- ❖ Readily available
- ❖ May complicate pregnancy, worsen depression

### Universal screening

- ❖ In person screening
- ❖ Urine drug screen
- ❖ Mood disorder screening: PHQ-9, GAD-7, EPDS

## Objective

The purpose of this retrospective cohort study is to investigate the relationship between early pregnancy THC and postpartum depression.

## Hypothesis

There exists a relationship between prenatal THC use and post partum depression.

## Methods

- ❖ Retrospective cohort study at a single center
- ❖ Inclusion criteria: A new OB (NOB) appointment with THC use screening, and a PP EPDS recorded
  - ❖ Exposure: THC use by patient reported history or +UDS
- ❖ Outcome: PPD diagnosis (EPDS >10, treatment initiated or increased)



- ❖ Covariates: Age, trimester at NOB, demographics, psychiatric diagnoses, PHQ-9 & GAD-7
- ❖ Data analyzation: logistic regression, Pearson chi-squared tests, Wilcox rank sum tests, Fisher’s exact

## Results

- ❖ 18.7% THC incidence
- ❖ 66% THC users had Medicaid (p=0.0082)
- ❖ 30% Spanish primary language, none screened positive for THC

Present at NOB appt		Non-user (243)	THC User (56)	Total (299)	P-Value
Depression	No	218 (90%)	38 (68%)	256 (86%)	<0.0001
	Yes	25 (10%)	18 (32%)	43 (14%)	
Anxiety	No	210 (86%)	34 (60%)	244 (82%)	<0.0001
	Yes	33 (14%)	22 (40%)	55 (18%)	
Other substance use	No	234 (96%)	49 (88%)	283 (95%)	0.0362
	Yes	9 (4%)	7 (12%)	16 (5%)	

PPD	Non-user (243)	THC User (56)	Total (299)	P-Value
No	196 (80.7%)	43 (76.8%)	239 (79.9%)	0.5142 Pearson’s Chi-squared test
Yes	47 (19.3%)	13 (23.2%)	60 (20.1%)	

## Conclusions

- ❖ No association between THC and PPD however this does not align with recent research (Lendel, Cao, Ko)
- ❖ THC incidence is higher than anticipated (Lendel, Salameh, Crume)
- ❖ A history of anxiety or depression increases risk of PPD (Silverman)

## Study Limitations

- ❖ Generalizability
- ❖ Data gathering
- ❖ Insufficient care in post partum period

## References

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