



Cannabis Strains, Potency, and Self-Reported Memory Loss Among Young Adults in South Florida: Preliminary Findings from the Herbal Heart Study

Hamza Masoud¹, Amrit Baral, MBBS, MPH^{1,2}, Ranya Marrakchi El Fellah, MPH¹, Bria-Necole A. Diggs, MSPH^{1,2}, Sarah Messiah, PhD³, MPH, Raul Gonzalez, PhD⁴, Barry Hurwitz, PhD¹, Claudia Martinez, MD¹, Denise C Vidot, PhD^{1,2}

¹University of Miami Miller School of Medicine; ²University of Miami School of Nursing and Health Sciences; ³University of Texas Health Science Center at Houston, School of Public Health; ⁴Florida International University, Department of Psychology



GLOBAL ENTHEOGENIC RESEARCH COLLABORATIVE

BACKGROUND

- With the increasing prevalence of cannabis use among young adults, various strains and potencies have become readily available
- Common strains of cannabis include indica, sativa, and hybrid combinations of the two
- Different levels of potency and strength are measured by a percentage of THC by weight
- Modern day dispensaries provide potencies that can range from 3% up to 30%

OBJECTIVE

- The potential impacts of different forms of cannabis consumption on memory
- Provide valuable insight for policymakers, to develop evidence-informed regulations for cannabis legislation at the state level

METHODS AND PROCEDURES

- Data sourced from cannabis consumers participating in the ongoing Herbal Heart Study Cohort
- Research focused on investigating the impacts of cannabis, cannabinoids, and various consumption methods on subclinical cardiovascular risk
- Target demographic: young adults aged 18-35 residing in South Florida
- Descriptive statistics and Chi-squared/Fisher's exact test where appropriate were employed using SAS Analytics

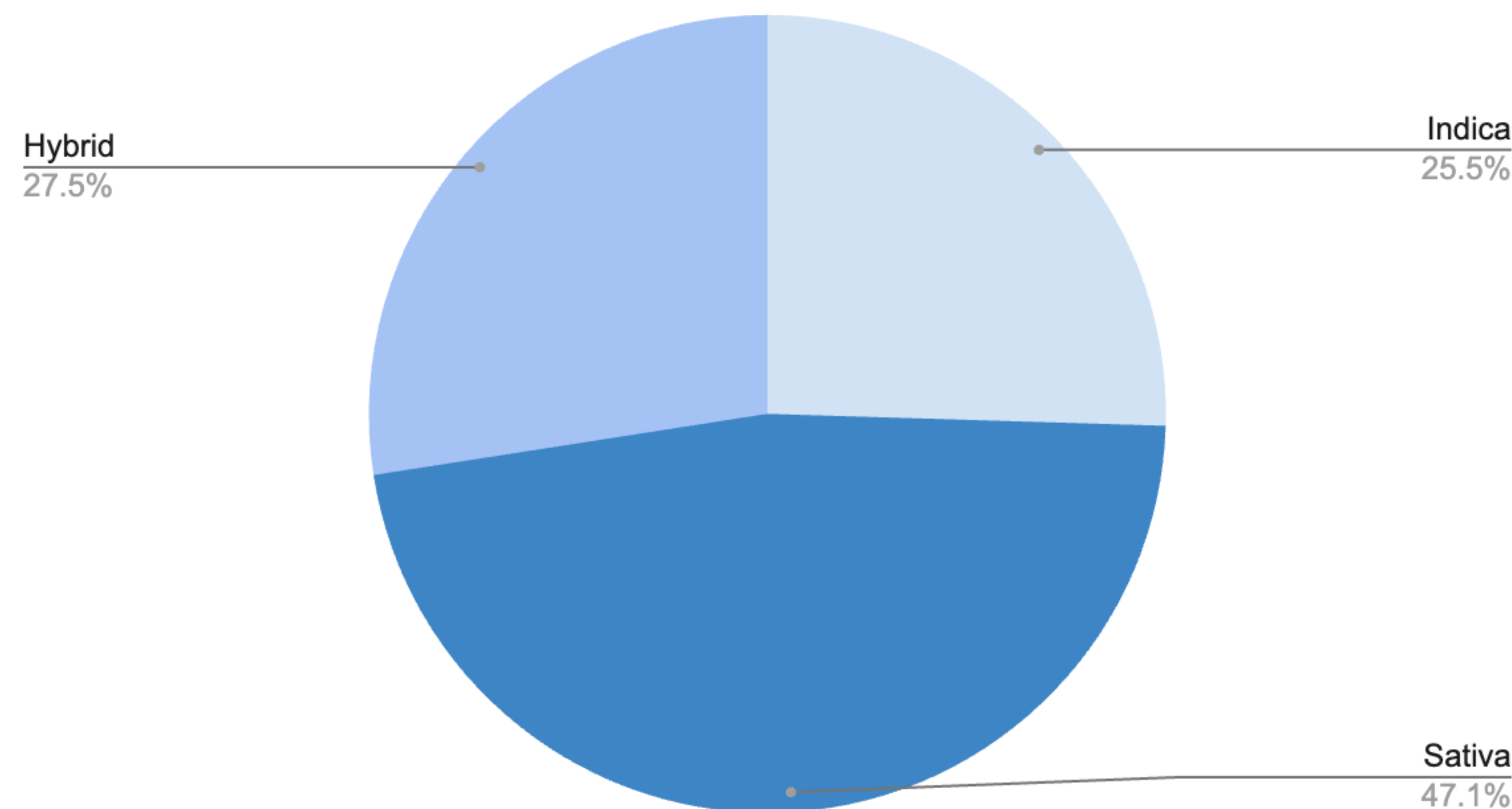
MEASURES

- To measure the affect of self-reported cannabis consumption on a participant's memory, the Marijuana Problem Scale (MPS) was utilized
- Response options: "no problem" to "minor problem" and "serious problem"
- For this analysis, responses were coded into a binary variable: "Yes" if any problem was reported and "No" otherwise

DATA AND RESULTS

- Demographics:
 - Female users (57.9%), Mean age (25 years), Hispanics/Latinos (51.3%), African Americans (19.7%), Non-Hispanic Whites (18.4%)
- Cannabis usage patterns:
 - Preferred strain: Hybrid (42.1%), Indica (30.3%), Sativa (18.4%), Uncertain (9.2%)
 - Potency preferences: High-potency (64.5%), Regular to mid-grade (25.0%), Uncertain (10.0%)
- Memory Loss:
 - Self-reported memory loss: 43.4%
 - Correlation to strain: Indica (25.5%), Sativa (47.1%), Hybrid (27.5%)
 - Correlation with potency: High potency (81.8%), Uncertain potency (12.1%), Regular to mid-grade (6.1%)

Correlation of Strain to Memory Loss



DISCUSSION

- There is a statistically significant correlation between the consumption of different cannabis strains and potencies with recorded memory loss in young adults ($p=0.0025$)
- Sativa demonstrates the highest prevalence of self-reported memory loss, followed by hybrid and indica users
- Potency patterns gave expected results with higher concentrations of THC leading to increased levels of self-reported memory loss

CONCLUSION

- Findings suggest a strong association between cannabis strains, potency, and self-reported memory loss among young adults
- Insights from this study can inform evidence-based policies and regulations regarding cannabis use, particularly among young adults, emphasizing the need for targeted interventions to decrease potential adverse effects on memory.
- These findings highlight the necessity of incorporating cannabis strain and potency considerations into clinical discussions and treatment plans for patients experiencing memory-related issues, illustrating the potential efficacy of personalized medicine approaches in addressing cannabis-related health concerns.

ACKNOWLEDGMENTS

I would like to thank Dr. Denise Vidot and the Herbal Heart Study for giving me the opportunity to study the effects of different cannabis strains and potencies on levels of self-reported memory loss among young adults in South Florida.