

COLLEGE STUDENTS' CONFIDENCE IN REPORTING QUANTITY OF CANNABIS USE ACROSS CONTEXTS



Jennifer L. Shipley, M.S., M.P.H. & Abby L. Braitman, Ph.D.

INTRODUCTION

College student cannabis use is prevalent¹ and problematic.²⁻³ Quantity of cannabis used has been difficult to assess as the established common standard unit⁴ is not well known, with different methods of assessment typically used across studies.⁵⁻⁹ However, participants tend to overestimate cannabis quantity.¹⁰⁻¹¹ The current study examined if college student confidence in reported quantity and potency varied across type of use day (cannabis alone vs. with alcohol), routes of administration, and contexts (environmental and social).

METHOD

Participants

- N = 51 college students
- $M_{age} = 21.25$ (SD = 2.03), 60.8% cisgender women, 60.8% White, 15.7% Black, 11.8% more than one race
- Reported at least one simultaneous alcohol and cannabis (SAM) use day in the past 14 days at baseline

Materials

Confidence in quantity of grams and percentage of THC and/or CBD

- e.g., "How confident are you in the amount of marijuana you reported you used yesterday?" (created by the researchers)
- 0 = not at all confident to 10 = completely confident

Type of use day

- Single substance day (cannabis only)
- Co-use day (both alcohol and cannabis)
- SAM or concurrent (CAM) use day

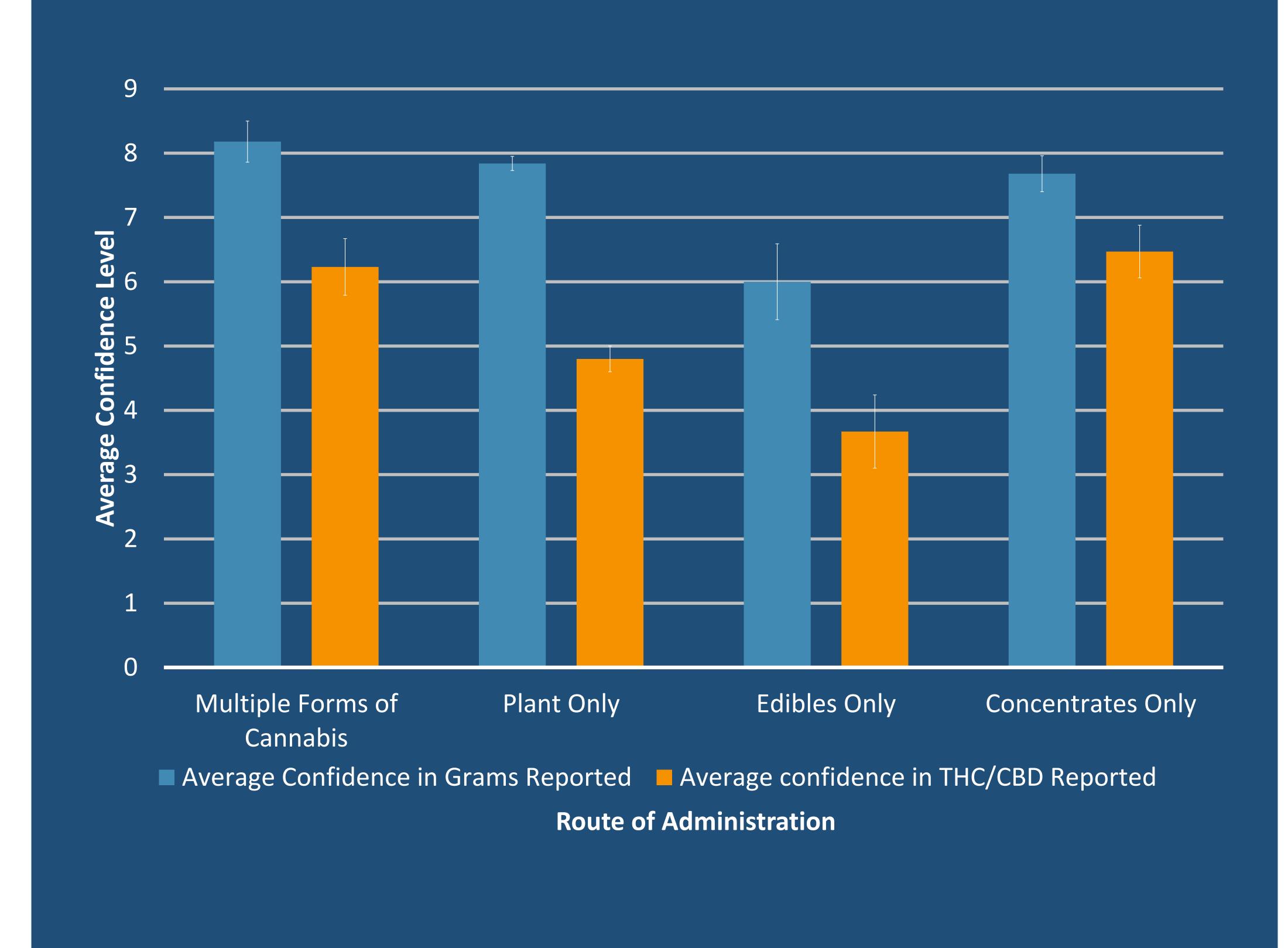
Routes of Administration¹²

 "Which types of marijuana did you use yesterday?" (Plant, Edibles, Concentrates, Topicals, Other)

Contexts

- Environmental (i.e., location)¹³
- Social (if others were present or not)

Confidence in reporting quantity and potency varied across route of administration.







Supported by the Society for Health Psychology Graduate Student Research Award in General Health Psychology. Presented at the 2023 Collaborative Perspectives on Addiction Meeting, Albuquerque, NM.

Procedure and Analysis

- Data were collected as part of a larger 21day online daily diary study
- n = 905 daily cases
- n = 545 cannabis use days
- Multilevel models were conducted in HLM
- Controlled for gender and aggregated daily predictors at level two

RESULTS

| | Confidence in Grams | | | Confidence in THC/CBD | | |
|----------------------------|---------------------|------|------|-----------------------|------|------|
| | β | SE | p | β | SE | p |
| Multiple forms of cannabis | -0.05 | 0.31 | .866 | -0.97 | 0.35 | .006 |
| Edibles only | -0.51 | 0.66 | .435 | 089 | 0.74 | .228 |
| Concentrates only | -1.02 | 0.39 | .009 | 052 | 0.44 | .229 |

- Participants were more confident in the quantity they reported on CAM use days than SAM use days ($\beta = 0.71$, SE = 0.35, p = .044).
- Confidence in potency reported did not vary significantly across type of use day.
- Confidence in quantity and potency did not vary significantly across social or environmental contexts.

DISCUSSION

Confidence in quantity/potency reported did not vary significantly across contexts. Confidence may vary across route of administration because a standardized measurement of cannabis quantity is not as well known. More research is needed to determine how to ensure accurate estimates of quantity/potency of cannabis use, especially in a more diverse sample. Having accurate estimates will help inform research on harms related to cannabis use, as well as interventions. Research is ongoing for this study, and different trends may emerge when the full sample size is reached.

For questions or comments, please contact:

Jennifer L. Shipley, M.S., M.P.H.

Graduate Student Department of Psychology, Old Dominion University Norfolk, VA 23529 jship002@odu.edu Abby L. Braitman, Ph.D.

Assistant Professor
Department of Psychology, Old Dominion University
Virginia Consortium Program in Clinical Psychology
Norfolk, VA 23529
abraitma@odu.edu

References

- 1. Schulenberg, J. E., Patrick, M. E., Johnston, L. D., O'Malley, P. M., Bachman, J. G., & Miech, R. A. (2021). Monitoring the Future national survey results on drug use, 1975–2020: Volume II, College students and adults ages 19–60. Ann Arbor: Institute for Social Research, The University of Michigan. Available at http://monitoringthefuture.org/pubs.html#monographs
- 2. Arria, A. M., Calderia, K. M., Bugbee, B. A., Vincent, K. B., O'Grady, K. E. (2015). The academic consequences of marijuana use during college. Psychology of *Addictive Behaviors*, 29(3), 564-575. http://dx.doi.org/10.1037/adb0000108
- 3. Pearson, M. R., Liese, B. S., Dvorak, R. D., & the Marijuana Outcomes Study Team. (2017). College student marijuana involvement: Perceptions, use, and consequences across 11 college campuses. *Addictive Behaviors*, 66, 83-89. https://doi.org/10.1016/j.addbeh.2016.10.019
- 4. Volkow, N. (2021, May 10). Establishing 5mg of THC as the Standard Unit for Research. National Institute on Drug Abuse. https://nida.nih.gov/about-nida/noras-blog/2021/05/establishing-5mg-thc-standard-unit-research#:~:text=By%20NIDA%20Director%20Nora%20Volkow,Sharpless%2C%20MD.
- 5. Bravo, A. J., Weinstein, A. P., Pearson, M. R., & Protective Strategies Study Team. (2019). The relationship between risk factors and alcohol and marijuana use outcomes among concurrent users: A comprehensive examination of protective behavioral strategies. *Journal of Studies on Alcohol and Drugs, 80*, 102-108. https://doi.org/10.15288/jsad.2019.80.102
- 6. Pearson, M. R., & Marijuana Outcomes Study Team. (2018). Marijuana Use Grid: A brief, comprehensive measure of marijuana use. Manuscript submitted for publication.
- 7. Linden-Carmichael, A. N., & Allen, H. K. (2021). Profiles of alcohol and marijuana use among simultaneous alcohol and marijuana users: Individual differences in demographics and substance use. *Journal of Drug Issues*, 51(2), 239-248. https://doi.org/10.1177/0022042620979617
- 8. Cloutier, R. M., Calhoun, B. H., & Linden-Carmichael, A. N. (2022). Associations of mode of administration on cannabis consumption and subjective intoxication in daily life. *Psychology of Addictive Behaviors*, 36(1), 67-77. https://doi.org/10.1037/adb0000726
- 9. Linden-Carmichael, A. N., Van Doren, N., Masters, L. D., & Lanza, S. T. (2020). Simultaneous alcohol and marijuana use in daily life: Implications for level of use, subjective intoxication, and positive and negative consequences. *Psychology of Addictive Behaviors*, 34(3), 447-453. https://doi.org/10.1037/adb0000556
- 10. Prince, M. A., Conner, B. T., & Pearson, M. R. (2018). Quantifying cannabis: A field study of marijuana quantity estimation. *Psychology of Addictive Behaviors, 32*(4), 426–433. https://doi.org/10.1037/adb0000370
- 11. Mian, M. N., Altman, B. R., Morrissey, C., Ueno, L. F., Dalal, D., & Earleywine, M. (2021). Packing cannabis, pouring alcohol: Validating a free-pack assessment among college students using cannabis. *Psychology of Addictive Behaviors, 35*(8), 877-886. https://doi.org/10.1037/adb0000718
- 12. Prince, M. A., & Conner, B. T. (2019). Examining links between cannabis potency and mental and physical health outcomes. *Behaviour Research and Therapy, 115*, 111-120. https://doi.org/10.1037/pha0000498
- 13. Lipperman-Kreda, S., Paschall, M. J., Saltz, R. F., & Morrison, C. N. (2018). Places and social contexts associated with simultaneous use of alcohol, tobacco and marijuana among young adults. *Drug and Alcohol Review, 37*(2), 188-195. http://doi.org/10.111/dar.12537