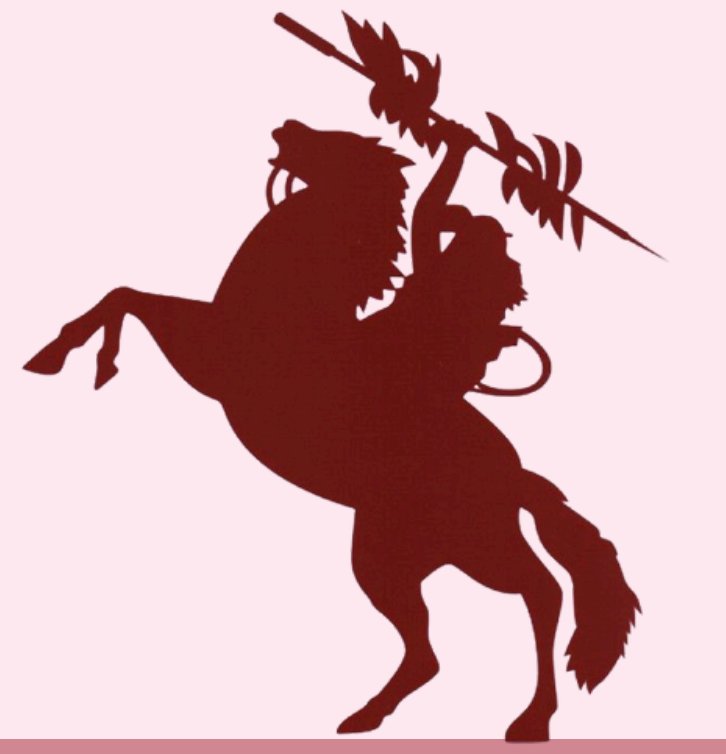
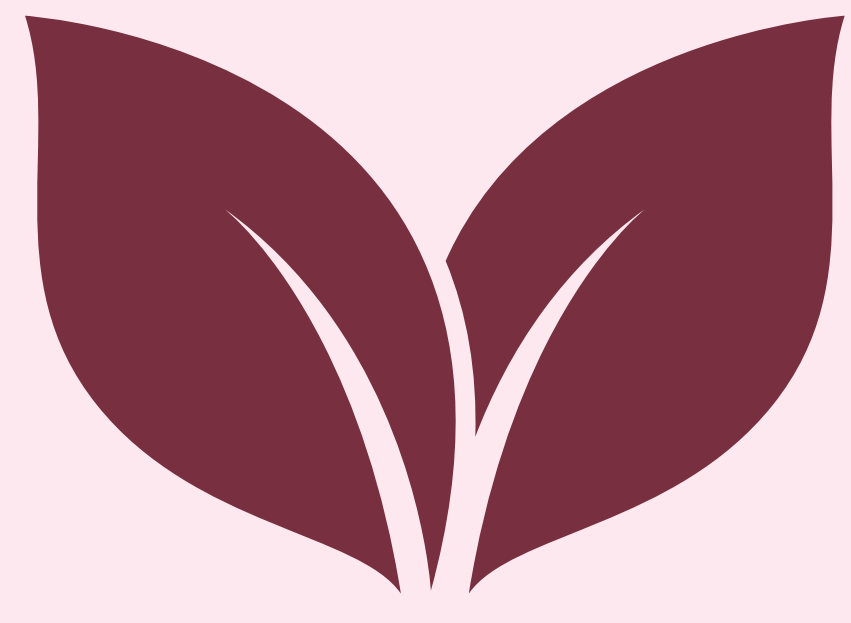


# Associations Between Kratom Attitudes and Demographic Factors in High School-Aged Adolescents

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## 1. Introduction

With its recent introduction to the West, kratom has rapidly increased in popularity for its opiate-like effects, while legislation has struggled to keep pace.

- Kratom is a psychoactive plant (Fig. 4) that was originally used by indigenous Pacific Islanders for its therapeutic effects. These effects are caused by the metabolic breakdown of alkaloids into chemicals like 7-Hydroxymitragynine (Smith, 2021).
- Pure 7-Hydroxymitragynine was banned in Florida due to severe psychological side effects and is 13 times more potent than morphine in its pure form (Alsbrook, 2024).
- Despite its ban, similar synthetic compounds are still found in kratom extracts (Brown, 2016) (Fig. 2).
- The drug is currently available in 18+ kratom bars and is often advertised as a sober alternative for younger users (Fig. 1, Fig 3.).

## 2. Our Study

- The current literature on adolescent kratom use is limited.
  - This study analyzed how community ease of access and peer substance use are associated with kratom knowledge and use among high school students in Florida.
- H1:** Students living in communities with greater ease of access would report higher kratom knowledge and use.
- H2:** Students with higher peer substance use rates would be associated with higher kratom use and knowledge.

## 3. Methods

### Sample:

- Secondary analysis of the 2024 Florida Youth Substance Abuse Survey (FYSAS) of high school-aged adolescents;  $N = 884,228$  (FYSAS).
- **Demographics:**
  - 45.4% Caucasian, 26.5% African American, 34.8% Hispanic/Latino, 8.4% other racial identities. Students were able to check off multiple races.
  - 50.1% male and 49.1% female, with an average age of 16 years old.

### Measurement:

- **Predictors:** Community ease of access and average peer substance use
- **Covariate:** Gender
- **Outcomes:** Kratom use and kratom knowledge

### Analysis:

- Preliminary analyses and logistic regression were conducted in SPSS.



Fig. 1 Social Media bio of a popular kratom bar in Tallahassee, FL.



Fig. 2 Kratom derivative products in a smoke shop.



Fig. 3 Advertising from a popular kratom product.



Fig. 4 Kratom leaf.

## 4. Results

**H1:** The logistic regression model predicting kratom knowledge was statistically significant.

- Each one-unit increase in average peer substance use increased the odds of reporting kratom familiarity by 39.6%, ease of access resulted in an 11.8% increase, and males had 5.2% higher familiarity.

**H2:** The logistic regression model predicting kratom use was statistically significant.

- Each one-unit increase in average peer substance use increased the odds of reporting kratom use by 205.2%, in ease of access resulted in a 12.7% increase, and males had 82.7% higher familiarity.

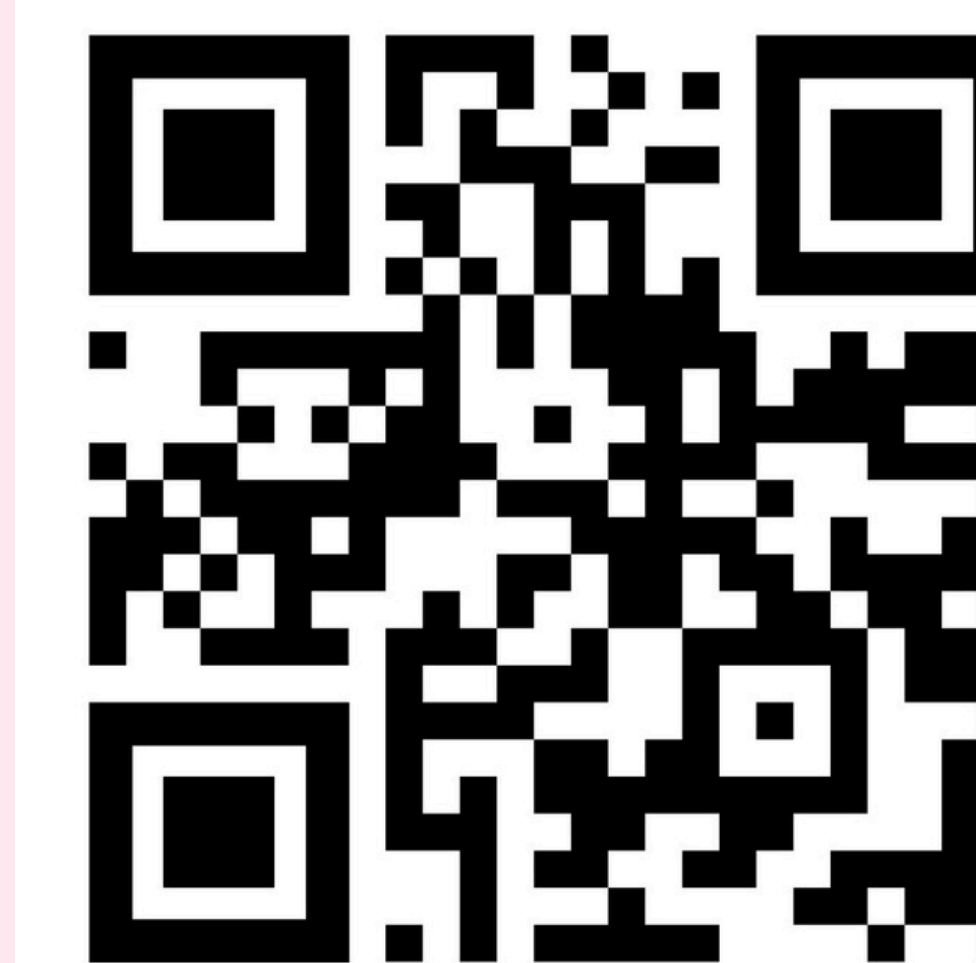
### Strengths and Limitations:

- **Use of cross-sectional data:** Causal effects cannot be determined. Longitudinal data would be needed to understand directionality.
- **Self-report limitations:** Survey responses may underreport behaviors.
- **Measurement clarity:** The survey directly asked “kratom” but some students may consume branded drinks without recognizing they contain kratom.

## 4. Implications

- **Key Findings:** Adolescents with greater community access (H1) and higher peer substance use (H2) were significantly more likely to report kratom knowledge and use.
- The predictors of kratom use in adolescents is consistent with previous observations in countries where it is more widespread (Khalid, 2022).
- **Education** can be used as a tool in broadcasting the impacts of kratom
- **Understanding** the population affected can guide protective measures against the long-term neurological effects of the drug in adolescents (Hossain, 2023).
- **Further research** is needed to determine how to minimize abuse of harmful alkaloids and glean possible therapeutic effects (Smith, 2021).

## 5. Works Cited (QR code)



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Table 1

Logistic Regression Predicting Effects of Community Ease of Access, Peer Substance Use, and Gender on Kratom Knowledge and Use

Predictors	Kratom Knowledge		Kratom Use	
	OR [95% CI]	p-value	OR [95% CI]	p-value
Community Ease of Access	1.118 [1.115, 1.120]	< .001	1.127 [1.121, 1.134]	< .001
Peer Substance Use	1.396 [1.386, 1.408]	< .001	2.052 [2.017, 2.089]	< .001
Gender	1.052 [1.034, 1.071]	< .001	0.827 [0.792, 0.863]	< .001

Note. OR = odds ratio; CI = confidence interval (Yes = 1, No = 0). Both logistic regression models were statistically significant. Model fits were as follows: Kratom Knowledge:  $\chi^2(3) = 29,359.76$ ,  $p < .001$ , Nagelkerke  $R^2 = .089$ ; Kratom Use:  $\chi^2(3) = 12,798.01$ ,  $p < .001$ , Nagelkerke  $R^2 = .148$ .