



Lifetime Marijuana Use in Association with Alcohol, Energy Drink and Smoking Use in Hispanic College Students

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Background

Currently, marijuana is the most prevalent drug on college campuses (Johnston et al., 2011).

While marijuana use rates are currently significantly high within college students, use rates are likely to continue to rise due to legalization of marijuana across states (Suerken et al., 2014; Miech et al., 2015). Furthermore, usage rates are also likely to increase due to autonomy from parents in college students (Suerken et al., 2014) and may lead to other addictive behaviors

However, findings suggest that those those who consume marijuana are less likely to become addicted to harder drugs (NIDA, 2018).

While marijuana use has been studied in the general college student population (Suerken et al., 2014), there are few studies to date looking specifically at Hispanic college students. Cultural differences need to be taken into account when investigating different populations' susceptibility to substance use.

Because of these findings, the authors aimed to assess the relationships between marijuana use and other addictive behaviors in Hispanic young adults.

Objective

The aim of the study was to assess age of initiating substance use and the relationships between ever use of marijuana and other addictive behaviors- smoking, drinking and energy drink consumption- in Hispanic college students.

Methods

Participants

- The present sample ($n = 345$) of Hispanic college students (72.2% female; $M_{age} = 20.13$; $SD = 3.92$) participated via online survey, through self-report. The participants were recruited through UTEP's undergraduate psychology program and received research participation credit (SONA).

Measures

- Sociodemographics:** This questionnaire collected typical sociodemographic information (e.g., age, sex, education).
- Marijuana Ever Use:** This questionnaire inquired whether she/he had ever used marijuana in their lifetime via self report. The participant answered either "Yes" or "No."
- Alcohol and Energy Drink Frequency:** Total yearly consumption of alcohol and energy drinks were assessed via self report.
- Current Tobacco Use:** This questionnaire assessed whether the participant was currently smoking tobacco via self report. The participant answered either "Yes" or "No."
- Age of First Use of Specified Drug:** The age of first time marijuana, alcohol, energy drink consumption and smoking tobacco was self reported.

Procedure

- After IRB approval was granted, participants were recruited online via Sona-system. Participants signed an informed consent form before they were prompted to being the survey. Participants were given course credit for their participation.

Approach to Analyses

- A logistic regression model was used to test the association between marijuana use and other addictive behaviors variables, $X^2(3)=40.08$, $p<.001$, Nagelkerke $R^2 = 0.43$.

Results

- The age of first time use for the following drugs were: $M=13.39$, $SD=7.05$ for marijuana, $M=9.61$, $SD=8.60$ for energy drinks, $M=16.42$, $SD=2.92$ for smoking tobacco and $M=15.42$, $SD=4.05$ for alcohol.
- Higher odds of lifetime marijuana use was observed for yearly smoking ($OR=3.67$ $p=0.007$), drinking ($OR=1.03$ $p=0.015$), and energy drink consumption ($OR=1.25$ $p=0.019$).

Tables

Table 1: Continuous Characteristics

	Mean	Std. Deviation	Range
Sample Participants Age	20.13	3.92	17-53
Age of First Use (Marijuana)	13.39	7.05	1-34
Age of First Use (Energy Drinks)	9.61	8.60	1-29
Age of First Use (Smoking Tobacco)	16.42	2.92	1-29
Age of First Use (Alcohol)	15.42	4.05	1-24
Yearly Alcohol Consumption	24.07	57.30	0-500
Yearly Energy Drink Consumption	8.34	28.39	0-200

Table 2: Dichotomized Variables

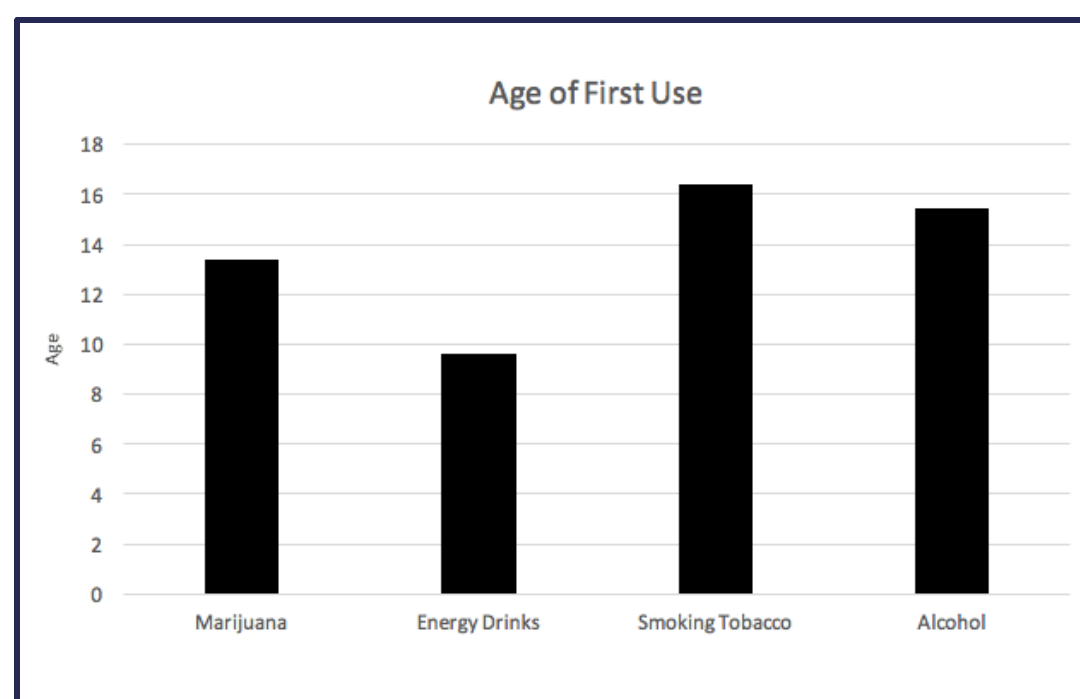
	Yes	No	Abstained	% Smokers	% Nonsmokers
Smoking Tobacco Use (Yes/No)	135	209	1	39.1	60.6
Ever Use of Marijuana (Yes/No)	98	54	193	28.4	15.7

Table 3:

Summary of binary logistic regression: Odds of Lifetime Marijuana Use

	B	SE	OR	CI (lower)	CI (upper)
Yearly Alcohol Consumption	0.031	0.013	1.03	1.01	1.06
Smoking Tobacco Use	1.30	0.484	3.67	1.42	9.47
Yearly Energy Drink Consumption	0.22	0.095	1.25	1.04	1.51

Notes. Bold indicates $p < .05$. Nagelkerke $R^2 = 0.43$



Discussion

Within the current study, Hispanic college students reported using marijuana and energy drinks at an earlier age than smoking tobacco and alcohol. The gateway hypothesis would not suggest these results (Kandel & Kandel, 2015). Thus, motives for first time drug use should be assessed.

The polysubstance use correlations found are consistent with the same co-use patterns observed in other ethnocultural groups, along with Hispanics (Johnston et al., 2011; Cooper et al., 2011). The relationship with energy drink consumption and marijuana usage is new among Hispanic college students, but is consistent with a previous study in a high school-aged sample (Azagba, Langille, & Asbridge, 2014).

Limitations of this study include its cross-sectional, correlational nature, and its reliance of self-report. Strengths include the assessment of an all Hispanic, primarily Mexican-American, college student sample and including the age of first using a substance.

Future prospective studies should assess the temporal relationships to strengthen polysubstance use interventions in Hispanic college students by targeting this unique progression of substance using behaviors. Other specific events, such as childhood trauma or mental health diagnoses and polysubstance use at an earlier age should be completed.

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