

## Introduction

Over the past 10 years, many states have legalized medical and recreational marijuana, causing an increase in its availability. While there has been a large focus in past investigations to determine what implications, if any, marijuana has on health (e.g., Brook, Stimmel, Zhang, & Brook, 2008; Hall & Lynkskey, 2016), there has been relatively less focus on what effects marijuana has on education. Current studies focus primarily on educational factors such as GPA, graduation and dropout rates, and cognitive functioning in marijuana users. The studies indicate students who smoke marijuana are more likely to have academic consequences such as lower GPA, greater time to graduate, and higher likelihood of dropping out compared to non-users.

The findings of previous investigations lead us to question if there is also a relationship between marijuana use and college campus involvement and satisfaction. Research on campus involvement shows college students involved in extracurricular activities, with high college and major belonging, had a greater life satisfaction compared to students in no extracurricular activities support this idea (Civitci et al., 2015). We hypothesize students who smoke marijuana will be less involved and satisfied with their college campus due to previous work showing lack of engagement with schoolwork. The goal of this study is to test a novel survey for these constructs, and gain an understanding of any relationship between them. Such knowledge may be useful to college administrators to help identify at risk students and implement policy to increase campus involvement and satisfaction in college student bodies.

## Methods

### Participants

Participants were selected from a convenience sample college students enrolled in psychology in either a private liberal arts institution (AC) or in a public university (UVU) in the Fall semester of 2016. A total of 174 (66% female) students completed the survey. Underclassmen constituted a majority (64.9%) of the sample. Major differences in the sample include UVU's lack of Greek Life, and AC students holding significantly more on-campus jobs ( $p < .001$ ). Underclassmen represented the majority of the sample (64.9%).

### Measures

The survey contained 20 questions developed for the present study divided into different subsections: demographic information, campus involvement, college satisfaction, and marijuana use.

### Procedure

After receiving the study recruitment email, participants who chose to participate clicked on the included link to the initial survey page which included the informed consent document. After providing affirmative consent, they completed the survey and they were given appropriate extra credit for participation.

### Analysis

We used linear and logistic regression analyses to determine whether marijuana use predicted campus involvement or satisfaction when controlling for other variables. Low internal consistency reliability for our engagement items necessitated using principal component factor analysis for dimension reduction.

## Results

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Figure 1 depicts the marijuana usage data reported by participants.

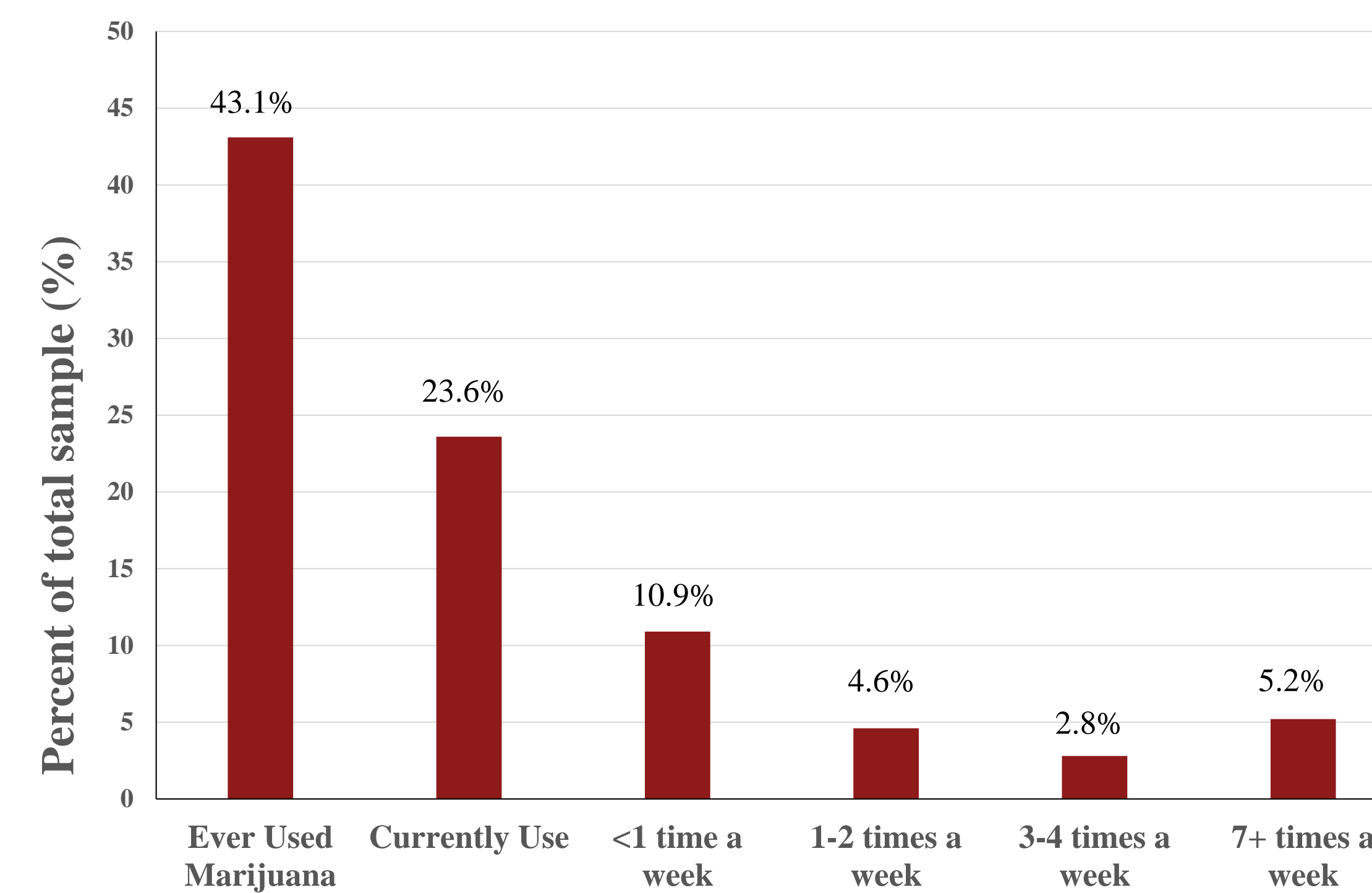


Figure 1. Marijuana Use Statistics

The factor analysis resulted in extraction of two factors: Breadth of engagement and Depth of Engagement (see Table 1). The former represents the amount of activities students participated in and the latter represents the amount of time dedicated to engagement activities.

Table 1.  
Principal Components Factor Analysis.

Item	Factor 1	Factor 2
Involvement In Campus Activities	0.83	
Number of clubs/organizations	0.83	
Number of Leadership Positions	0.75	
Greek Life	-0.70	
Attendance Campus Activities	0.70	
Athletic Involvement		-0.82
Number of Hours Per Week		0.75

No significant relationship was found between having ever used marijuana, or frequency of marijuana use for either engagement factor. Interestingly, though, students involved in Greek Life were 2.8 times more likely to have ever tried marijuana compared to non-Greek counterparts ( $p = .02$ ).

How often a student reported using marijuana was a negative predictor of satisfaction among current users ( $\beta = -.470$ ,  $p = .01$ ; see Table 2).

Table 2.  
Regression Analysis Predicting College Satisfaction Among Current Marijuana Users ( $n = 41$ ).

Predictor	<i>b</i>	<i>SE</i>	$\beta$	<i>t</i>	<i>p</i>
Intercept	5.74	0.78		7.40	< .001
Frequency of Use	-0.26	0.10	-0.47	-2.61	.01
Race	-0.27	0.29	-0.15	-0.93	.36
Gender	-0.52	0.34	-0.28	-1.55	.13
Institution	0.11	0.35	0.05	0.30	.76

## Conclusions

### Findings

- Marijuana use frequency at the two schools tested closely mirrors previously reported national data for college students (Johnston, O'Malley, Miech, Bachman, & Shulenberg, 2015).
- Marijuana use frequency did not predict campus involvement at the level we thought it might, but it was able to predict satisfaction. This finding indicates that a link might exist between marijuana and satisfaction, but extracurricular involvement may not play a role in the relationship.
- Members of Greek Life are more likely to have tried marijuana; this relationship was driven by AC data, as UVU does not have an active Greek community.

### Limitations

- Study population was limited to college students enrolled in psychology courses at a small LAC and larger public university. Demand characteristics may have played a role in this study if students (generally aware of research goals) reported differently in light of this study's topic.
- The current study included primarily underclassmen with limited data from upperclassmen (who have had more time to get involved).
- The survey given was novel and consisted of modified questions from a conglomerate of previous studies on marijuana use and campus involvement. Consequently, the internal reliability was not high in each sub-section, indicating we may not have been measuring the constructs adequately.
- The topic of this study required the use of sensitive, self-reported information. Students may have answered questions inaccurately; knowingly or otherwise.

### Recommendations

- Future research should focus on strengthening the survey questions and scope to more accurately and precisely measure constructs.
- Campus administration may consider targeting students in specific social groups such as Greek Life to gain an understanding of why they are relatively less content with the College.
- Qualitative inquiry may yield suggestions on what is causing students who smoke marijuana to be dissatisfied with their respective college campus.
- Future studies might also consider targeting upperclassmen, as they may be more involved relative to underclassmen.

## References

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