

# Post-Secondary Students' Prevalence & Patterns of Cannabis Use

Research Summary



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## KEY MESSAGES

1. Prevalence and patterns of cannabis use among post-secondary students vary by gender, age, sexual orientation, geographic location, race, and ethnicity.
2. Men students report higher and more frequent rates of cannabis use compared to women students.
3. Lesbian, gay, bisexual, and queer (LGBQ) men and women report higher rates of cannabis use compared to heterosexual students.
4. There are gender differences in concurrent cannabis use on college campuses, especially concurrent alcohol, and cannabis use.
5. Cannabis use messaging impacts men and women students' prevalence of use, with positive cannabis messaging influencing women students' cannabis use.

## INTRODUCTION

This research summary is part of a larger research and knowledge translation project about sex, gender and cannabis use led by the Centre of Excellence for Women's Health and funded by Health Canada. The research methods and other research summaries are posted on the [Sex, Gender, and Cannabis Hub](#). While most of the literature considers or studies men and boys and/or women and girls, we include information about all gender groups when available.

Our 2019 [Sex, Gender and Cannabis](#) report assessed a range of sex and gender related factors affecting cannabis use based on literature published prior to 2018. In that report, we found that there were several gender-related factors affecting the prevalence of cannabis use, including that of post-secondary students [1]. Some key findings included:

- » Past year cannabis use was higher among men than women *undergraduate* students [2, 3].
- » In a study of graduate and undergraduate students, *undergraduate* men had higher past 30-day cannabis use whereas women *graduate* students had higher past 30-day cannabis use [4].
- » 43.9% of men and 8.7% of women reported driving after using cannabis. More men than women students also reported riding as a passenger with someone who had used cannabis [5].
- » In a US study examining "risky partying" behaviour, 99% of cannabis users also drank alcohol and 60% used one or more additional substances with men reporting higher rates of cannabis and concurrent cannabis, alcohol, and other drug use compared to women (19% of men vs. 12% of women) [2].
- » A US study found that there was a similar age of cannabis use initiation for women and men attending US colleges (mean age of initiation = 17 yrs.) [5].

This summary describes evidence from 23 articles in the academic and grey literature published between 2018 and 2021 on gender-related factors affecting prevalence and patterns of cannabis use by post-secondary students.

We found very little information on sex-related factors and cannabis use among students. Most studies in this summary used gender as a categorical variable and analyze gender differences, while a few explore how gender identity and norms influence prevalence and patterns of cannabis use.



## GENDER AND STUDENTS' PREVALENCE, AND PATTERNS OF CANNABIS USE

Men students generally report higher and more frequent rates of cannabis use compared to women students [6-10].

- » A US study found that men students were 42% more likely to report cannabis use in the past 30 days compared to women students [6].
- » A Norwegian study found that men students were almost twice as likely as women to report past year cannabis use (22.9% of men vs. 11.9% of women) [8].
- » A French study of medical students found that women were 70% less likely to frequently use cannabis compared to men [11].
- » A US study of Latinx students found that Latino men attending post-secondary institutions who perceived cannabis use amongst their peers were more likely to use cannabis more frequently than women [12].

Men and women post-secondary students in the US report similar age of cannabis use initiation with majority of students reporting initiation over the age of 18, or never using cannabis [13]:

### **Men:**

- » 5.9% reported ever using cannabis before age 15
- » 22.2% reported using cannabis between ages 15-17
- » 71% reported using cannabis above the age of 18 or never [13]

### **Women:**

- » 3.2% reported ever using cannabis before age 15
- » 22.5% reported ever using cannabis between the ages of 15-17
- » 74.3% reported ever using cannabis above the age of 18 or never [13]

Several studies demonstrated that while men and women had different rates of lifetime cannabis use, problematic cannabis use [14, 15] and cannabis use disorder [11], no clear patterns emerged.

#### *Lifetime cannabis use*

- » In a survey of 824 US post-secondary students in Tennessee and Oregon, lifetime cannabis use, and number of cannabis use days were reported as twice as high among men compared to women [9, 10].
- » A study of 2,327 US post-secondary students in Hawaii found that more women than men reported lifetime cannabis use (59% of women vs. 41% of men) [16].

#### *Problematic cannabis use and cannabis use disorder*

- » In a Canadian study of post-secondary students, 14.4% of men reported severe problematic cannabis use (CUDIT-R score of 9 or greater) compared to 7.7% of women [14].
- » In another Canadian study, women cannabis users were significantly more likely to classify family history of cannabis problems, type of cannabis used, and number of times high per week as factors affecting problematic cannabis use compared to men. Compared to women with problematic use, men students with problematic cannabis use were more likely to believe that frequency of being high indicated whether an individual has problems with cannabis [15].
- » Men and women medical students in France reported similar prevalence of cannabis use disorder (10.8% for women vs. 10.6% for men) [11].

## **GENDER, CANNABIS USE, AND LOCATION**

Gendered patterns of cannabis use vary based on location, institution type, and living situation.

- » Women undergraduate students living on-campus used 30% less cannabis than men living on-campus [17].
- » US post-secondary women students raised in rural areas reported a lower prevalence of cannabis use than women students raised in urban areas and men students raised in either rural or urban areas [18].
- » Women attending a state university in the US were more likely to use cannabis than women attending a private university. Conversely, men attending a private university were more likely to use cannabis than men attending a state university [19].

#### *Sexual orientation, race, ethnicity, and age*

- » Women students in the US were more likely to use cannabis if they experienced discrimination related to their race and/or sexual orientation compared to women who experienced no discrimination [19].
- » Women attending a US post-secondary institution who were younger, White, and lesbian, gay, bisexual, or queer (LGBQ) were more likely to use cannabis compared to heterosexual women [20].
- » White men students in the US were 85% more likely to report cannabis use compared to non-White men students [20].
- » In a US study of students from seven post-secondary institutions, Black heterosexual, lesbian, and bisexual women and White lesbian and bisexual women were significantly more likely to use cannabis in the past 30 days compared to White heterosexual women [19]. In the same US study, students who were White gay and bisexual men were more likely to report past 30-day cannabis use than White heterosexual men [19].
- » A US study found that lesbian, bisexual, and transgender women reported higher rates of cannabis use, more frequent cannabis use, and greater use of cannabis use as a coping mechanism compared to heterosexual women [21].
- » Younger men in a US study were more likely to report cannabis use in the past month, compared to older men students [20].

## GENDER AND CONCURRENT CANNABIS AND OTHER SUBSTANCE USE

There are gendered patterns of cannabis use concurrent with other substances among post-secondary students.

- » 73% of US students who reported recreational prescription opioid misuse in the past 6 months also used cannabis, with men indicating significantly more frequent concurrent use compared to women [22].
- » US men students studying abroad who use cigarettes or e-cigarettes and had a history of cannabis use reported heavier cannabis use rates while abroad compared to women students [23].

Most studies on concurrent substance use by post-secondary students focused on alcohol and cannabis use:

- » A US study of post-secondary students found no significant gender differences in increased cannabis use and negative alcohol consequences [24].
- » Another US study examining simultaneous alcohol and cannabis use among students found that men had higher past year simultaneous alcohol and cannabis use rates compared to women [25].
- » Women at a post-secondary institution in the US who used cannabis were more likely to report heavy drinking compared to women that did not report cannabis use [26].
- » Women who engaged in heavy episodic drinking 4 to 5 times a month reported much higher cannabis use compared to women students who abstained from drinking or engaged in heavy episodic drinking once a month [27].

## CANNABIS USE MESSAGING AND GENDER

Social media use and positive cannabis messaging are associated with gender related factors connected to students' cannabis use and intentions to use, according to a US study [28]:

- » Exposure to pro-cannabis messaging was positively associated with cannabis use for women, but not for men [28].
- » Social media use was positively associated with intentions to use cannabis, but not reported cannabis use among both women and men [28].



# Summary

Consistent with our 2019 Sex, Gender, and Cannabis Report [1], patterns and prevalence of cannabis use by post-secondary students differ by gender, with men reporting higher and more frequent cannabis use and lifetime cannabis use compared to women. The evidence also reveals the significant impact of geographic location, sexual orientation, age, race, and ethnicity on cannabis use among men and women students. Cannabis use messaging impacts men and women students' prevalence of use, with positive cannabis messaging influencing cannabis use among women but not men. The research on gender disaggregated prevalence and patterns of post-secondary students' cannabis use is limited and, since 2018, has been primarily based in the US. Nevertheless, as we continue to identify and share the gendered health and social influences on cannabis use by post-secondary students, this information can inform both students' decision making, health campaigns, and campus-based health promotion efforts.

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*Men students generally reported higher and more frequent rates of cannabis use compared to women students.*

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