

Caffeine Consumption Behaviours at the University of Saskatchewan

Saskatchewan

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INTRODUCTION

- Caffeine is a natural drug or stimulant in consumable products such as coffee and cacao beans and added to energy drinks among other food items. (Harvard, n.d).
- High doses of caffeine can cause negative symptoms, which include nervousness, restlessness, and insomnia (Richards & Smith, 2015). Daytime sleepiness and weekly crash and burn episodes have been attributed to drinking energy drinks (Richards & Smith, 2015).
- Mahoney (2018) and colleagues found that 92% of University students in the past year consumed caffeine.
- Narayann et. al., found that eighty percent of all respondents in a New Zealand University reported the most common substance used to increase academic performance was caffeine (2021).
- This question about caffeine consumption is of value as it can provide insight into the beliefs and attitudes about caffeine in the USask community. The data can help educate in the future and eliminate knowledge gaps.

RESEARCH QUESTION

- How does caffeine consumption affect the daily behaviours of students at the University of Saskatchewan, and how does this impact their studies?

METHODS

- This project has received ethics approval from the University of Saskatchewan Behavioural Research Ethics Board (BEH 291).
- The survey consisted of ten multiple-choice survey questions. The survey questions were narrowed down to lead to a better understanding of students and staff's consumption of caffeine at USask.
- SurveyMonkey was used to collect USask students and staff's data.
- Recruitment was conducted through PAWS announcements, social media, and word of mouth. The survey was open from October 20th, 2022, until November 2nd, 2022.
- Data were analyzed using Microsoft Excel; descriptive statistics were determined.

OPEN SCIENCE FRAMEWORK LINK

<https://osf.io/54kb3/>

RESULTS

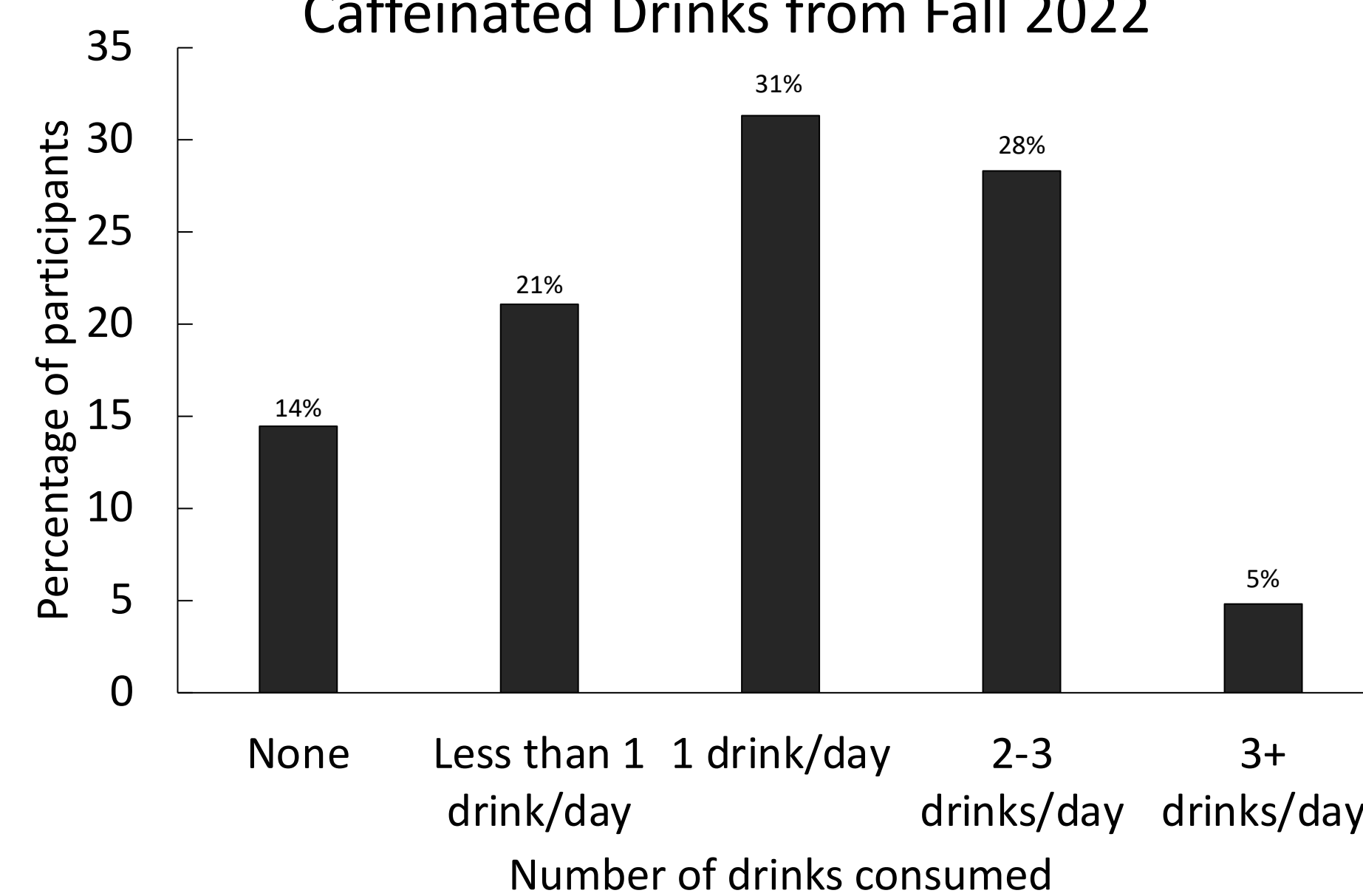
- The survey had 204 participants enter, 176 gave consent and answered the demographic questions, and 166 answered at least one of the survey questions about caffeine.

Table 1. Participant Demographics

Gender	n (%)*
Male	34 (20.4)
Female	126 (75.9)
Non-binary	2 (1.2)
Trans man	2 (1.2)
Prefer not to disclose	2 (1.2)
Age (years)	n (%)
≤19	38 (22.9)
20-24	60 (36.1)
≥25	68 (41.0)
Are you in a health science college?	n (%)
Yes	57 (34.4)
No	109 (65.6)
Position at USask	n (%)
Undergraduate student	105 (63.8)
Graduate student	15 (9.0)
Faculty/Staff member	43 (25.9)
Other	3 (1.8)

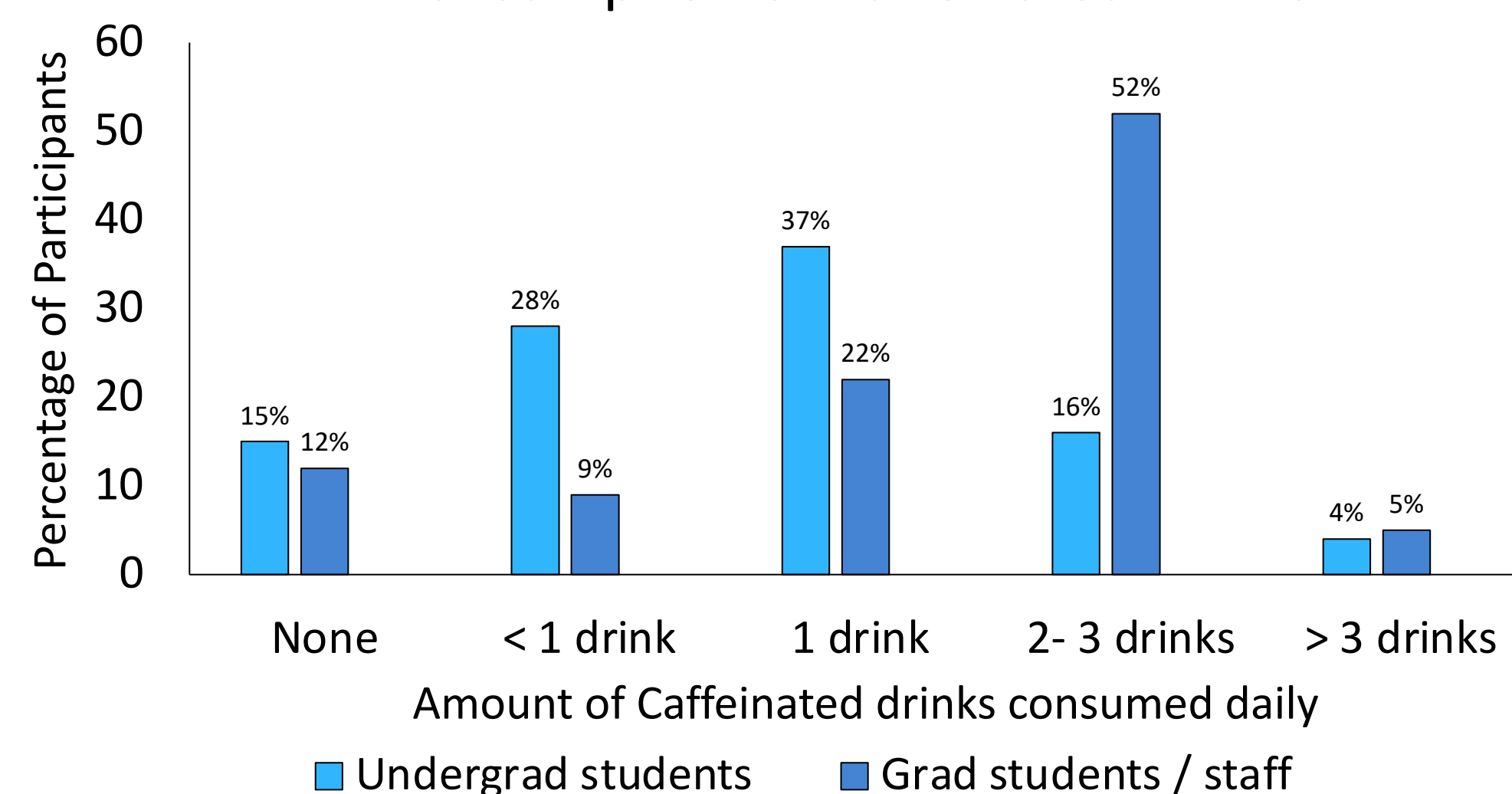
*n=number of respondents; %=percentage of respondents

Figure 1. Daily Average Consumption of Caffeinated Drinks from Fall 2022



- Figure 1 indicates that 64% of students and staff that completed our survey are consuming one or more drinks containing caffeine per day.

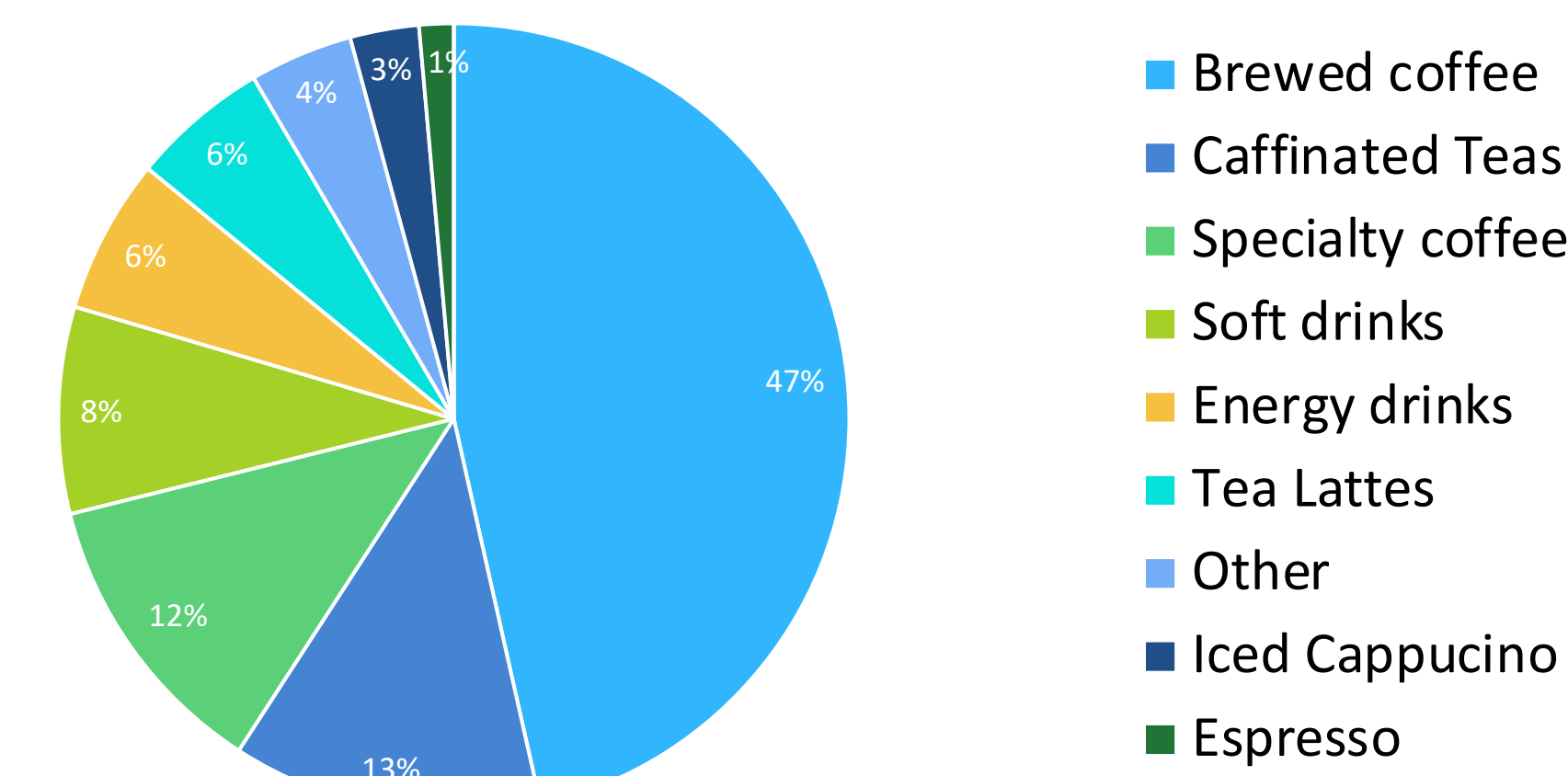
Figure 1.1 Comparison of Daily Average Consumption of Caffeinated Drinks



- Figure 1.1 indicates that graduate students and staff are consuming more caffeinated drinks per day compared to undergraduate students, with 57% of graduate students and staff are consuming more than two beverages compared to 20% of undergraduate students.

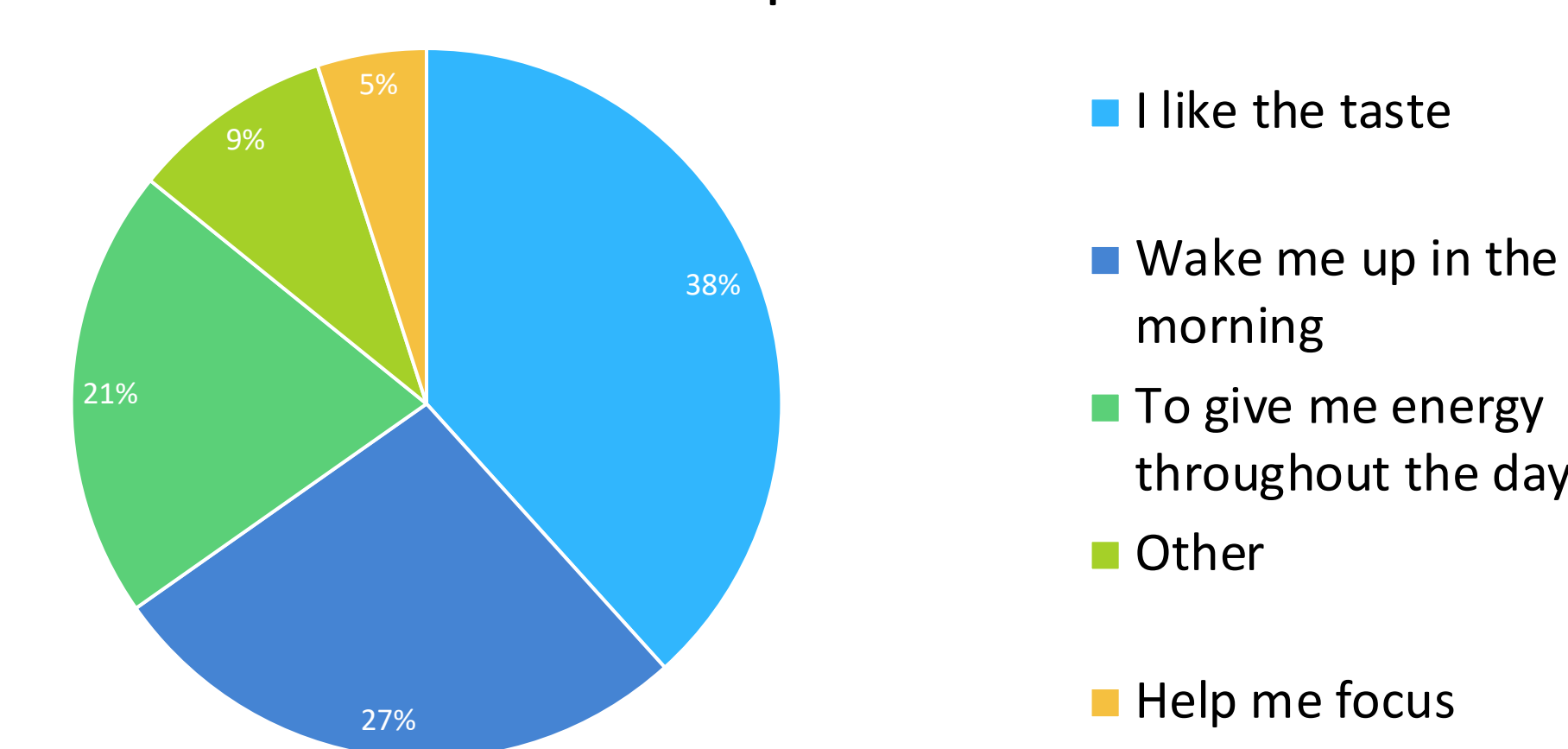
RESULTS

Figure 2. Most Commonly Consumed Caffeinated Beverage



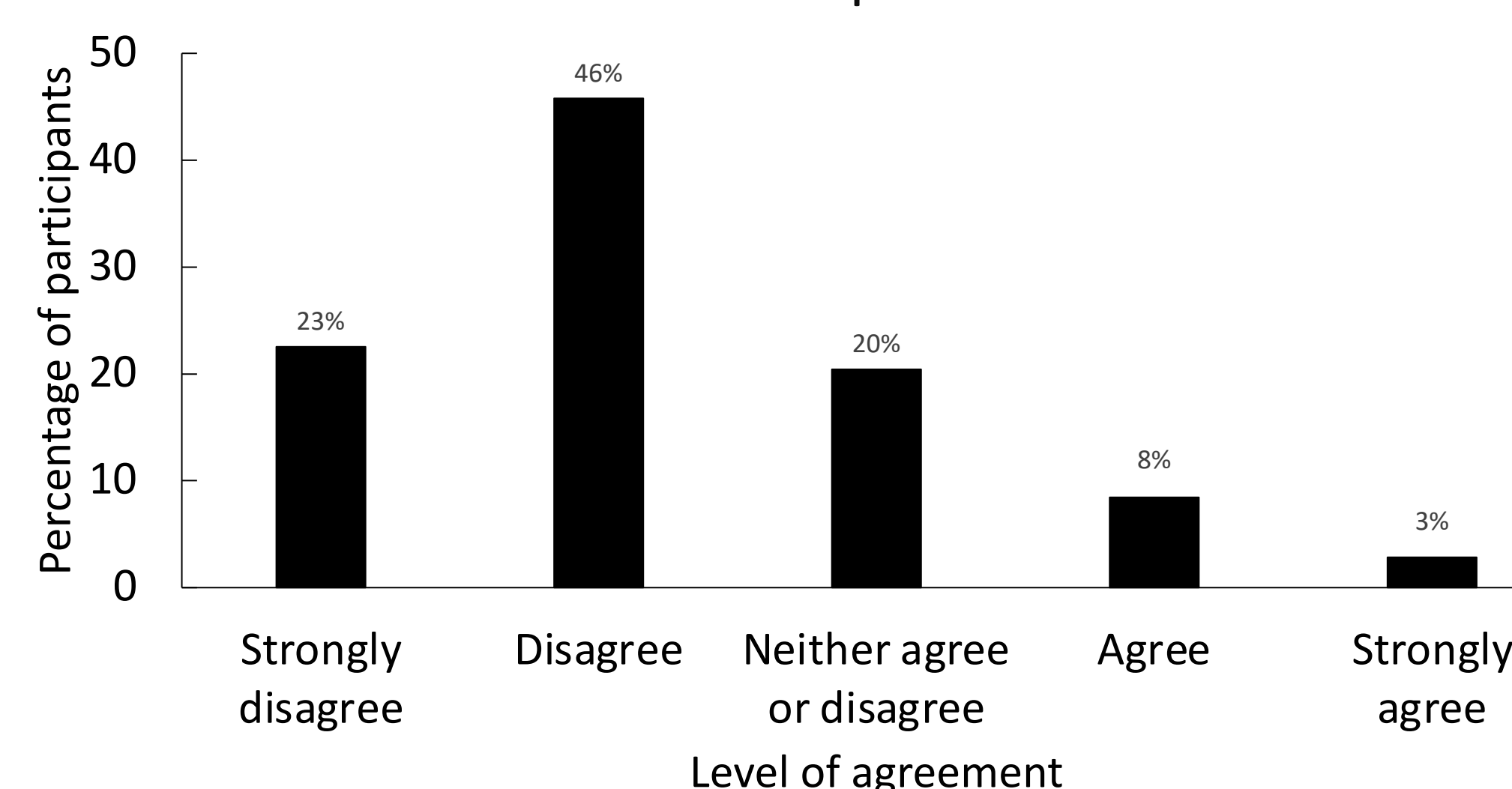
- Figure 2 indicates that brewed coffee is the most common caffeinated drink consumed by USask students and staff, with 47% of respondents selecting brewed coffee. However, there is a wide range of other caffeinated drinks consumed.

Figure 3. Main Reason for Caffeine Consumption



- Figure 3 represents that most people state their main reason for caffeine is that they like the taste (38%) rather than its energy benefits (21%).

Figure 4. Agreement that Caffeine Affects Falling Asleep

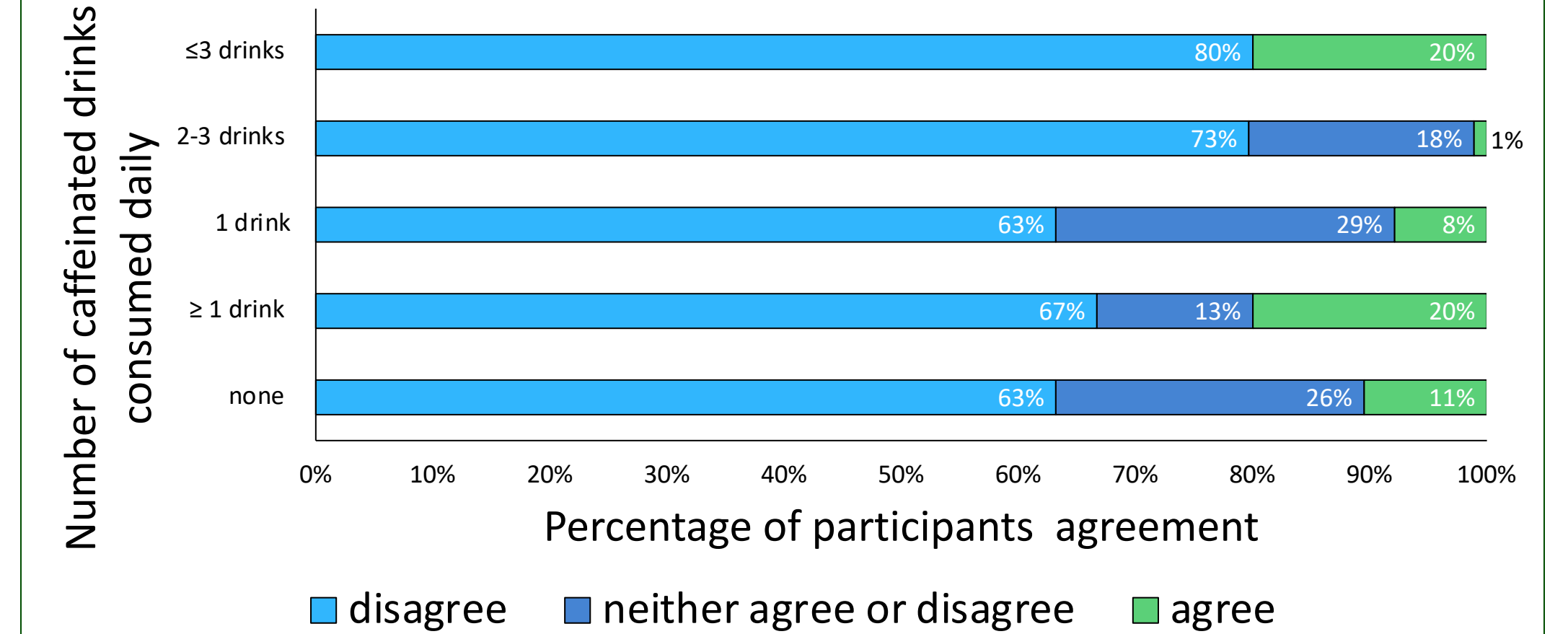


- Figure 4 represents people's agreement with the statement, "I have a hard time falling asleep on days when I consume caffeine."
- 69% of respondents do not believe caffeine is affecting their ability to fall asleep (Figure 4).

- The survey indicated 39% felt that caffeine did not enhance their academic work, while 32% felt caffeine did enhance academic work, and 30% did not know.

RESULTS

Figure 5. Amount of Caffeine consumed vs. belief that it can affect falling asleep.



- Figure 5. Individuals who consumed more caffeinated beverages a day were more likely to believe caffeine was not affecting their ability to fall asleep compared to participants that drank less caffeinated beverages.

CONCLUSION

- 64% of participants consumed at least one caffeinated drink daily, most commonly through brewed coffee.
- Most participants are consuming caffeine for the taste, and do not believe it affects their ability to fall asleep. Participants are divided if caffeine affects academic performance.
- Drake et al (2013) found that consumption of caffeine up to six hours before sleep negatively impacts an individual's quality of sleep, while our survey found that our participant's perception of their sleep disagrees with Drake et al's findings with 69% disagreeing.
- Khan et al (2017) found that there was no direct link between academic performance and caffeine intake. Our survey showed agreement with this in that participants were divided on whether they agreed or disagreed.
- This data demonstrates knowledge of the effects caffeine within the USask community. Some of the knowledge aligns with research, while in other areas it does not
- A limitation of the survey is that a majority of participants were from health science colleges rather than equal participation from all faculties.
- The next step of this study would be to continue past the perceptions of caffeine and conduct a participant study where the effects are directly measured.
- The data collected can be used to educate the USask community on the gaps in knowledge that are out there about caffeine.

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