

What is the relationship between pets and gender?

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Introduction/ Background

College students are often regarded as some of the most stressed individuals. According to the Editorial Staff at American Addiction Center, "87.9% of college students said their school life was stressful" (Ackermann, K., et. al, 2022).

According to the Mintel Press Team, "71% of men aged 18-44 own a dog compared to 60% of their female counterparts" (2016, para: 1). While this statistic includes people who are college-aged, it does not mention college students specifically.

The purpose of this study was to identify the relationship between gender identity and pet ownership amongst college students.

Hypothesis

We hypothesize that male college students will be 5% more likely to own a dog than a cat based on existing data.

Methods

The study took place over 9 weeks during the spring semester of the 2022-2023 school year. During this time, we used an online form to collect response from HU students.

Results

We had a total of 102 respondents. Of those, 63 were male, as shown in figure 1. Of all of the participants in the study, 41 owned dogs and 20 owned cats. As shown in figure 2, 19 of the 41 that owned dogs were male, and 11 of the 20 that owned cats were male.

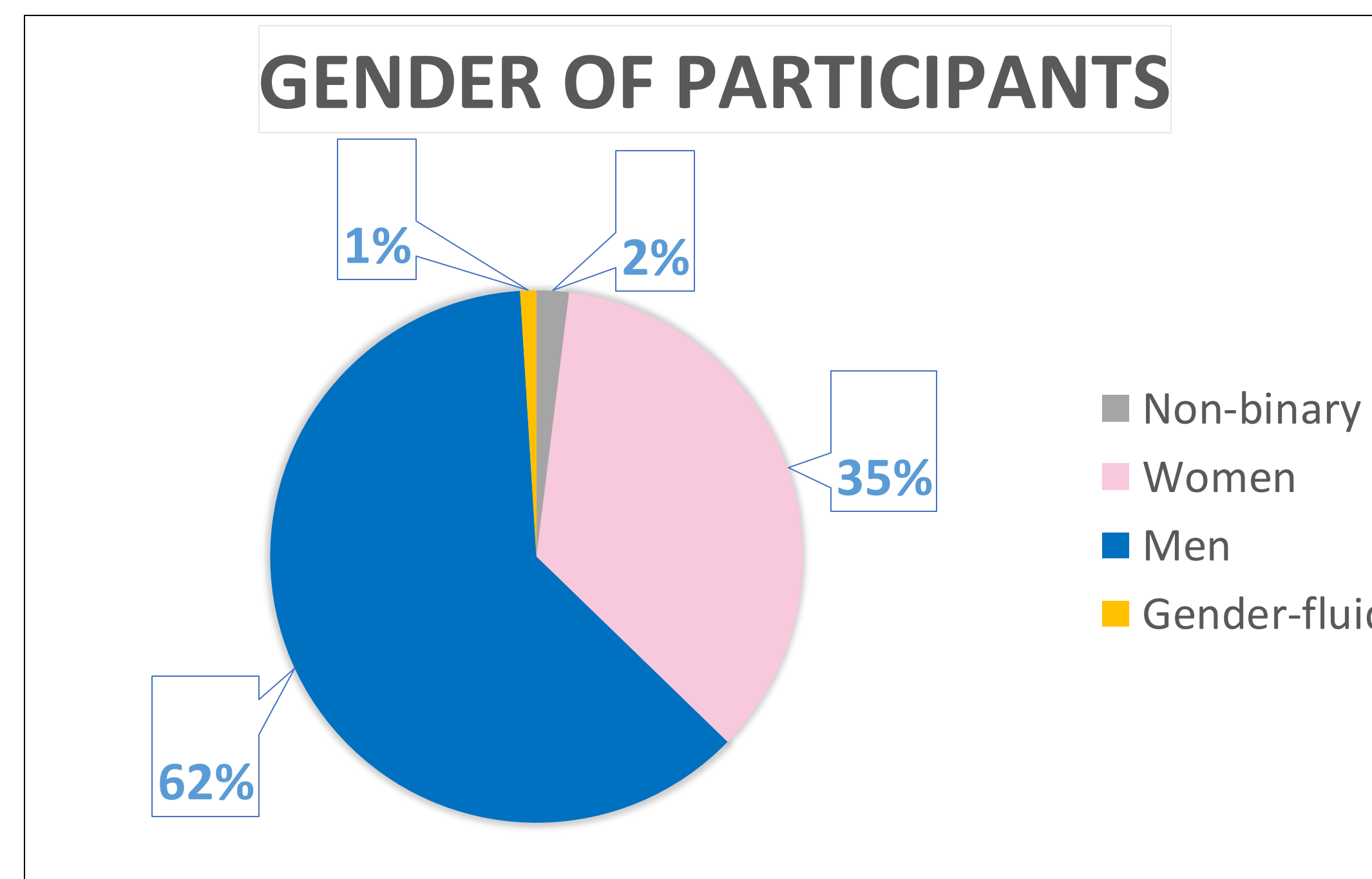


Figure 1: number of participants

Males who own either a dog or a cat		
	Dogs	Cats
	19	11
Total	41	20

Figure 2: breakdown of male pet ownership

Analysis

For this project, the null hypothesis would be that there is not a difference between the proportion of males who own dogs (p_1) and males who own cats (p_2) ($H_0: p_1 - p_2 = 0$). Alternatively, we believe that the proportion of males who own dogs is greater than the proportion of males who own cats ($H_a: p_1 > p_2$). Based on a 95% confidence level, the difference between the proportion of males who own dogs and who own cats is between -0.353 and 0.179 ($-0.353 < p_1 - p_2 < 0.179$). Our test statistic for our significance test was **-0.635** and our p-value turned out to be **0.7589**. Hence, we fail to reject the null hypothesis.

Conclusion

Our hypothesis starting was that male college students will be 5% more likely to own a dog than a cat based on existing data. Based on the data we received, we failed to reject the null hypothesis. We concluded our data with a confidence interval between $0.353 < p_1 - p_2 < 0.179$.

A limitation we saw with our data was that Harrisburg University Already contains a bigger male population. A second limitation we noticed was that our sample size is small.

References

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