

Students' Perspectives on Medical Testing

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Introduction

Medical testing is when researchers use experimentation on organisms to determine if a drug or treatment is safe and beneficial. It is conducted on animals and eventually humans.

A study showed that moral acceptance of animal use is correlated positively with age. Younger people have shown to be more opposed to animal testing for medical research. According to Ormandy and Schuppli (2014), there is a "...correlation between characteristics and approval of animal use in medical testing" (p. 1). The article also showed that "...men are more likely to agree with animal use because of the inferiority of animals" (para. 10-11).



We hypothesized that more than 50% of people would prefer medical testing to be conducted on animals instead of humans.

Methods

Our data was displayed as 10 questions consisting of multiple-choice and yes or no questions. We asked basic questions, such as "What do you identify as gender-wise?" and "How old are you?" These questions helped us examine variables such as age, gender, and area of study. Then, we asked questions pertaining to animals and lifestyle to compare them to the identity questions to help us answer our hypothesis, such as "Would you say that human lives are more valuable than other sentient beings' lives?"

Results

The older half of respondents aged 21-22 believed that human lives were not more valuable than sentient beings' lives in contrast to the younger half of students as shown in Figure 1. Only 47% believed human lives were more valuable than sentient beings' lives.

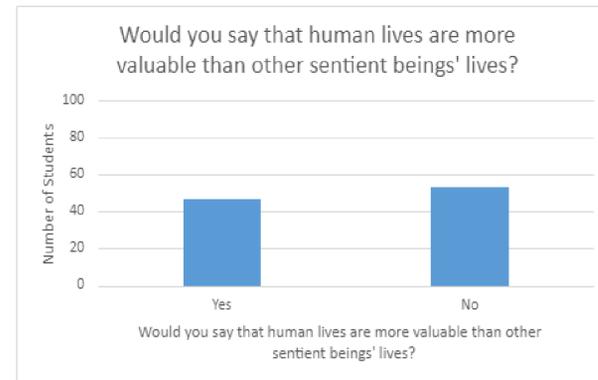


Figure 1. The number of students who responded "Yes" or "No" to the question "Would you say that human lives are more valuable than other sentient beings' lives?"

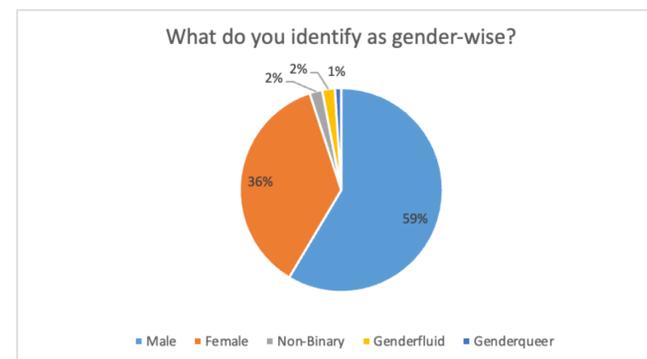


Figure 2. The percentage of students who responded as male, female, non-binary, gender-fluid, and genderqueer to the question "What do you identify as gender-wise?"



Figure 3. The percentage of students who responded "Yes" or "No" to the question "Do you prefer products that have been previously tested on living things?"

Statistical Analysis

Statistic: In a sample of 100 students, 47 of them valued human lives more than other sentient beings' lives. This means that our statistic, or sample percentage (\hat{p}), was 47%.
Margin of Error: 10%

Confidence Interval: (27.4%, 66.6%)

Parameter and Hypothesis: We hypothesized that at least 50% of people would prefer medical testing to be conducted on animals instead of humans.
Hypothesis (p_o) = $\geq 50\%$ Alternative Hypothesis (p_a) = $< 50\%$

Test Statistic: -0.60

P-Value: -1.20

$$P(z < -0.60) = 0.4761$$

Two-tailed test: $-0.60 \times 2 = -1.20$

Decision Rule: Is $0.05 > -1.20$? No, we do not reject H_o .

Conclusion

Our hypothesis was rejected due to there being a low significance between the value of human life and medical testing on animals. Therefore, our alternative hypothesis of less than 50% of students suggesting medical testing be done on animals failed to falsify. We are 95% confident that the true percentage of all students who identify human lives as more valuable than other sentient beings' lives is between 27.4% and 66.6%. With 95% confidence, we do not have evidence to conclude that the true percentage of all students who value human lives more than other sentient beings' lives is significantly different from our guess of at least 50%. Our guess was reasonable.

References

- Ormandy, E. H., & Schuppli, C. A. (2014, June 30). *Public Attitudes toward Animal Research: A Review*. PMC. Retrieved February 2, 2022, from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4494309/>
- U.S. Department of Health and Human Services. (2020, April 9). *What Are Clinical Trials and Studies?* National Institute on Aging. Retrieved April 14, 2022, from <https://www.nia.nih.gov/health/what-are-clinical-trials-and-studies>