

“SABV and Analyses” knowledge check

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Module 3

Understand the Limitations of Analyses that Ignore Sex Influences and Differences: page 7 of 35

Review the data for this hypothetical experiment. Then select the correct answer.

Data Not Analyzed by Sex

Group	Outcome Measure
Control	52
Intervention	50

Analyze Sample Data

What would you say about the effect of the tested intervention on the measured outcome?

- The intervention had an effect.
- The intervention had no effect.

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Module 3

Understand the Limitations of Analyses that Ignore Sex Influences and Differences: page 9 of 35

Now review the data from the same experiment disaggregated by sex and answer the same question.

Data Analyzed by Sex

Sex	Control Outcome Measure	Intervention Outcome Measure
Females	10	90
Males	90	10

Analyze Sample Data

Here are the data again, only this time with sex included in the analysis. What would you say about the effect of the tested intervention on the measured outcome based on this view?

- The intervention had an effect.
- The intervention had no effect.

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You've completed the module. Now it's time to test your knowledge.
Select the correct answer, then select Submit.

You can only rigorously analyze data by sex if you have _____.

- Reviewed the literature
- Collected data that includes both sexes
- Included a control and treatment group with at least one sex
- Pooled both sexes in the control and treatment groups

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Select the correct answer, then select Submit.

Not analyzing data by sex can lead to an erroneous conclusion.

- True
- False

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Select the correct answer, then select Submit.

In what cases should you add a sex-by-treatment interaction term in the statistical model and get a confidence interval for females and males from the model?

- In all studies that consider SABV
- When you are starting with a reasonably strong rationale to hypothesize sex differences
- When confidence level is below 95%
- All the above

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Select the correct answer, then select Submit.

If the aim of a study is to determine whether sex differences exist, then the design and number of subjects should be powered to detect sex differences.

- True
- False

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Select the correct answer, then select Submit.

In a preclinical study designed to specify a treatment dose that is most effective for females and males it is important to study _____.

- Two groups consisting of control and treatment groups in females
- Four groups consisting of control and treatment groups in both sexes
- Pooled data of control and treatment groups
- Two groups consisting of control and treatment groups in males

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Select the correct answer, then select Submit.

What would you do to analyze data from an experiment using factorial design if you want to represent the effects of each independent variable (sex and treatment) as well as their interaction?

- Conduct power analyses
- Pilot a study with small sample size estimations before powering a larger study
- Determine sample size based on the smallest effect expected
- Use a two-way ANOVA

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