10 tips
for analyzing research data

1. If your study tests a hypothesis, use both descriptive and inferential statistics.
2. Consider all of the data; dichotomization is typically not advised.
3. Descriptive statistics summarize data in a meaningful way so that patterns emerge.
4. Absence of evidence is not evidence of absence.
5. Presenting p-values together with confidence intervals is good practice.
6. If the assumptions of the statistical method are valid, the results can be trusted.
7. Always report if your unit of analysis is “eye” or “patient.”
8. If continuous data are skewed, apply a log or sqrt test to make the data normal.
9. When comparing three or more groups, adjust for multiple comparison effects.
10. Be aware of confounders: High correlation does not mean causation.

Bonus tip

Advanced statistical modelling may be needed to adjust for the effect of confounders.

Want to learn more? Find additional tips through the online course, “Demystifying statistics in eye and vision research.” Visit **arvo.org/online-education.**

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