

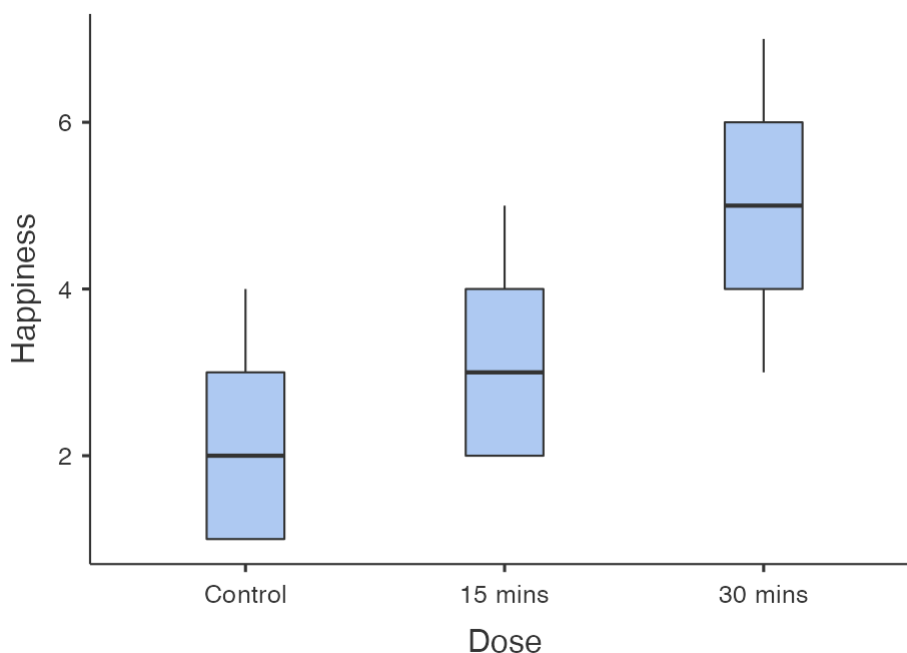
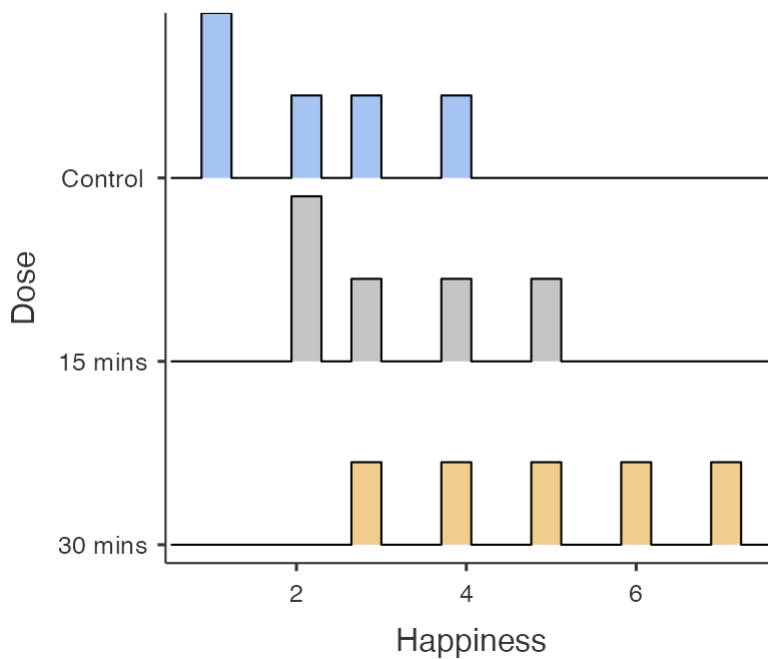
Results

Descriptives

| Descriptives | | |
|---------------------|---------|-----------|
| | Dose | Happiness |
| N | Control | 5 |
| | 15 mins | 5 |
| | 30 mins | 5 |
| Missing | Control | 0 |
| | 15 mins | 0 |
| | 30 mins | 0 |
| Mean | Control | 2.20 |
| | 15 mins | 3.20 |
| | 30 mins | 5.00 |
| Median | Control | 2.00 |
| | 15 mins | 3.00 |
| | 30 mins | 5.00 |
| Standard deviation | Control | 1.30 |
| | 15 mins | 1.30 |
| | 30 mins | 1.58 |
| Minimum | Control | 1.00 |
| | 15 mins | 2.00 |
| | 30 mins | 3.00 |
| Maximum | Control | 4.00 |
| | 15 mins | 5.00 |
| | 30 mins | 7.00 |
| Skewness | Control | 0.541 |
| | 15 mins | 0.541 |
| | 30 mins | 0.00 |
| Std. error skewness | Control | 0.913 |
| | 15 mins | 0.913 |
| | 30 mins | 0.913 |
| Kurtosis | Control | -1.49 |
| | 15 mins | -1.49 |
| | 30 mins | -1.20 |
| Std. error kurtosis | Control | 2.00 |
| | 15 mins | 2.00 |
| | 30 mins | 2.00 |
| Shapiro-Wilk W | Control | 0.902 |
| | 15 mins | 0.902 |
| | 30 mins | 0.987 |
| Shapiro-Wilk p | Control | 0.421 |
| | 15 mins | 0.421 |
| | 30 mins | 0.967 |

Plots

Happiness



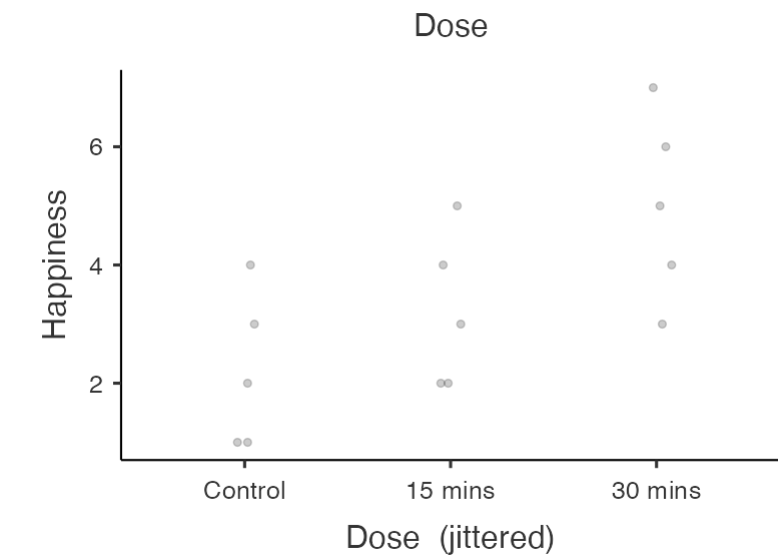
Relationships, Prediction, and Group Comparisons

You have entered a numeric variable for Variable 1 / Dependent Variable and a nominal variable for Variable 2 / Independent Variables. Hence, a [one way ANOVA](#), which is a test for the difference between several population means, seems to be a good option for you! In order to run this analysis in jamovi, go to: ANOVA > ANOVA

- Drop your dependent (numeric) variable in the box below Dependent Variable and your independent (grouping) variable in the box below Fixed Factors

If the normality or homoscedasticity assumption is violated, you could use the non-parametric [Kruskal-Wallis test](#). Click on the links to learn more about these tests!

Scatter Plots of Bivariate Relationships - Dependent/Independent Variables



One-Way ANOVA

One-Way ANOVA

| | | F | df1 | df2 | p |
|-----------|----------|------|-----|------|-------|
| Happiness | Welch's | 4.32 | 2 | 7.94 | 0.054 |
| | Fisher's | 5.12 | 2 | 12 | 0.025 |

Group Descriptives

| | Dose | N | Mean | SD | SE |
|-----------|---------|---|------|------|-------|
| Happiness | Control | 5 | 2.20 | 1.30 | 0.583 |
| | 15 mins | 5 | 3.20 | 1.30 | 0.583 |
| | 30 mins | 5 | 5.00 | 1.58 | 0.707 |

Assumption Checks

Normality Test (Shapiro-Wilk)

| | W | p |
|-----------|-------|-------|
| Happiness | 0.917 | 0.171 |

Note. A low p-value suggests a violation of the assumption of normality

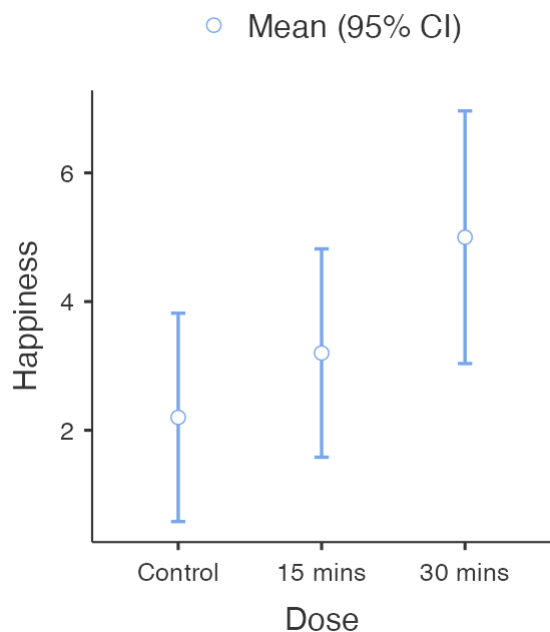
Homogeneity of Variances Test (Levene's)

| | F | df1 | df2 | p |
|-----------|--------|-----|-----|-------|
| Happiness | 0.0917 | 2 | 12 | 0.913 |

[3]

Plots

Happiness



Post Hoc Tests

Tukey Post-Hoc Test – Happiness

| | | Control | 15 mins | 30 mins |
|---------|-----------------|---------|---------|---------|
| Control | Mean difference | — | -1.00 | -2.80 |
| | p-value | — | 0.516 | 0.021 |
| 15 mins | Mean difference | | — | -1.80 |
| | p-value | | — | 0.147 |
| 30 mins | Mean difference | | | — |
| | p-value | | | — |

ANOVA

ANOVA - Happiness

| | Sum of Squares | df | Mean Square | F | p | ω^2 |
|-----------|----------------|----|-------------|------|-------|------------|
| Dose | 20.1 | 2 | 10.07 | 5.12 | 0.025 | 0.354 |
| Residuals | 23.6 | 12 | 1.97 | | | |

[3]

Assumption Checks

Homogeneity of Variances Test (Levene's)

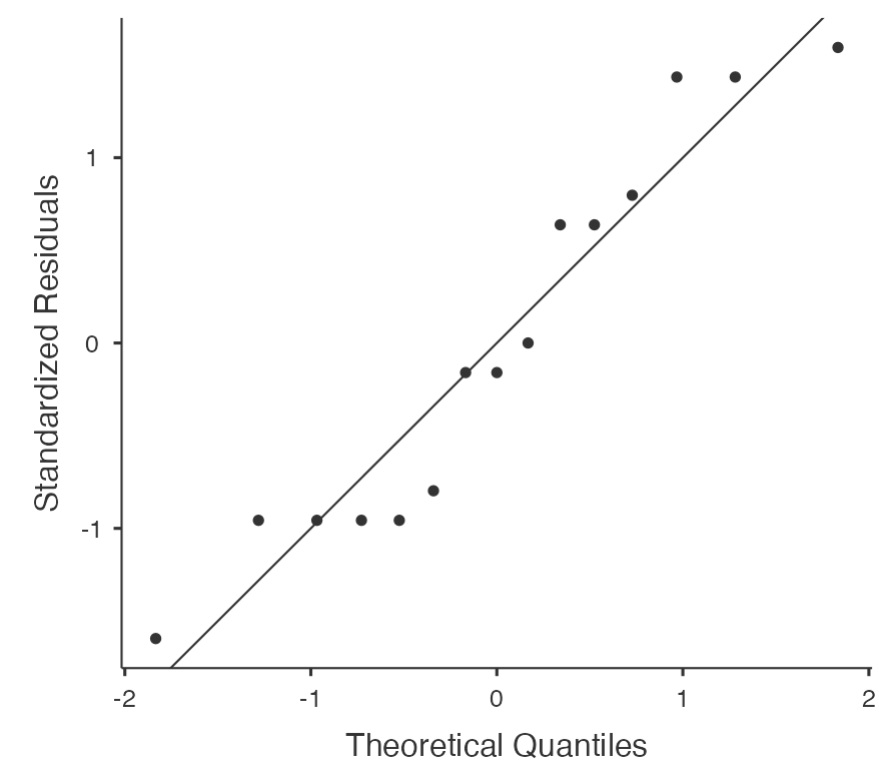
| F | df1 | df2 | p |
|--------|-----|-----|-------|
| 0.0917 | 2 | 12 | 0.913 |

[3]

Normality Test (Shapiro-Wilk)

| Statistic | p |
|-----------|-------|
| 0.917 | 0.171 |

Q-Q Plot



Post Hoc Tests

Post Hoc Comparisons - Dose

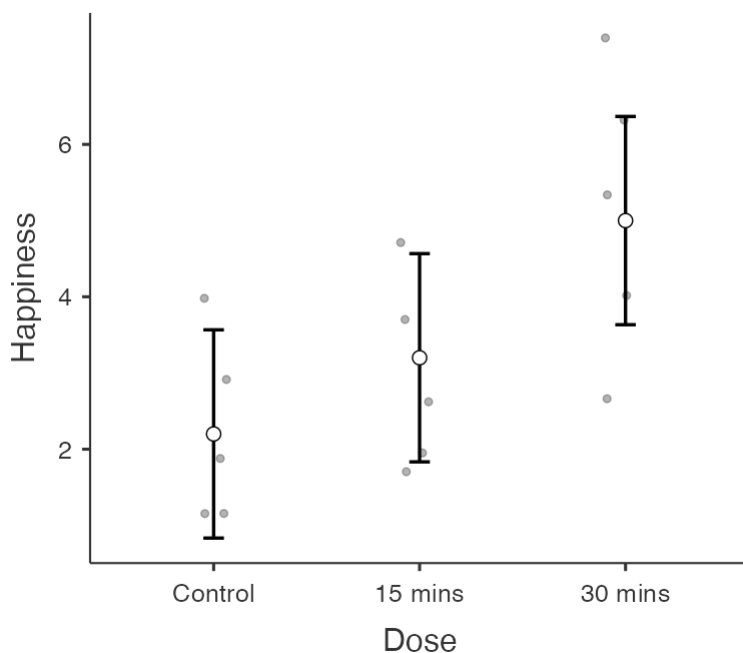
| Comparison | | Mean Difference | SE | df | t | Ptukey | Cohen's d |
|------------|-----------|-----------------|-------|------|-------|--------|-----------|
| Dose | Dose | | | | | | |
| Control | - 15 mins | -1.00 | 0.887 | 12.0 | -1.13 | 0.516 | -0.713 |
| | - 30 mins | -2.80 | 0.887 | 12.0 | -3.16 | 0.021 | -1.997 |
| 15 mins | - 30 mins | -1.80 | 0.887 | 12.0 | -2.03 | 0.147 | -1.284 |

Note. Comparisons are based on estimated marginal means

[4]

Estimated Marginal Means

Dose



[4]

Robust ANOVA

Robust ANOVA

| | F | p |
|------|------|-------|
| Dose | 4.78 | 0.070 |

Note. Median method

Post Hoc Tests

Post Hoc Tests - Dose

| | | | | 95% Confidence interval | |
|---------|---------|---------|---|-------------------------|-------|
| | | psi-hat | p | Lower | Upper |
| Control | 15 mins | . | . | . | . |
| Control | 30 mins | . | . | . | . |
| 15 mins | 30 mins | . | . | . | . |

Post hoc tests are not available for the median method

References

- [1] The jamovi project (2022). *jamovi*. (Version 2.3) [Computer Software]. Retrieved from <https://www.jamovi.org>.
- [2] R Core Team (2021). *R: A Language and environment for statistical computing*. (Version 4.1) [Computer software]. Retrieved from <https://cran.r-project.org>. (R packages retrieved from MRAN snapshot 2022-01-01).
- [3] Fox, J., & Weisberg, S. (2020). *car: Companion to Applied Regression*. [R package]. Retrieved from <https://cran.r-project.org/package=car>.
- [4] Lenth, R. (2020). *emmeans: Estimated Marginal Means, aka Least-Squares Means*. [R package]. Retrieved from <https://cran.r-project.org/package=emmeans>.