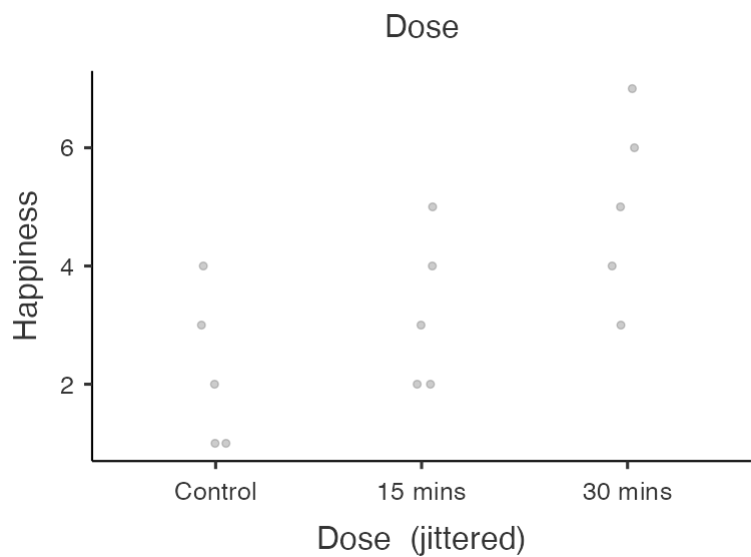# Results

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 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 (Welch's)

	F	df1	df2	p
Happiness	4.32	2	7.94	0.054

Assumption Checks

Homogeneity of Variances Tests

		Statistic	df	df2	p
Happiness	Levene's	0.0917	2	12	0.913
	Bartlett's	0.185	2		0.912

Note. Additional results provided by *moretests*

Normality Tests

		statistic	p
Happiness	Shapiro-Wilk	0.917	0.171
	Kolmogorov-Smirnov	0.179	0.720
	Anderson-Darling	0.517	0.159

Note. Additional results provided by *moretests*

Plots

Happiness
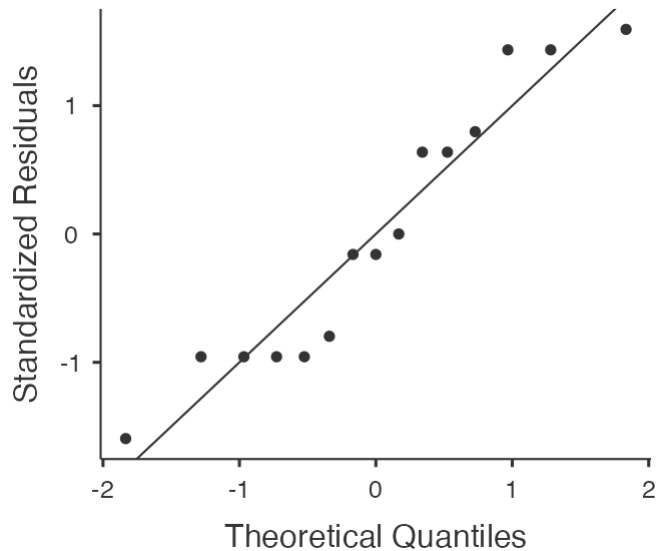
Post Hoc Tests

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
Dose	20.1	2	10.07	5.12	0.025
Residuals	23.6	12	1.97		

[3]

Robust ANOVA

Robust ANOVA

	F	p
Dose	3.00	0.160

Note. Method of trimmed means, trim level 0.2

Post Hoc Tests

Post Hoc Tests - Dose

		psi-hat	p	95% Confidence interval	
				Lower	**Upper**
Control	15 mins	-1.00	0.435	-5.32	3.32
Control	30 mins	-3.00	0.181	-7.32	1.32
15 mins	30 mins	-2.00	0.317	-6.32	2.32

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.