Results

Descriptives

Descriptives

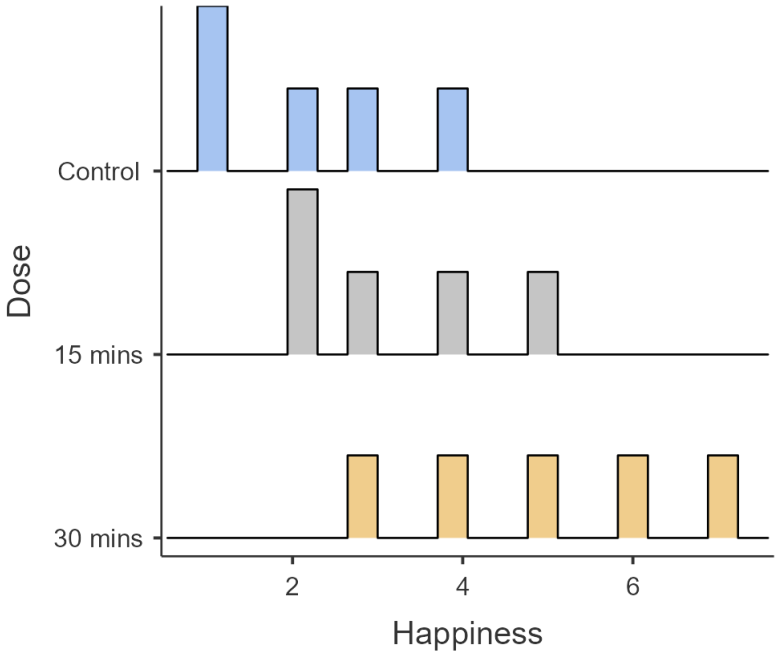
	Dose	Happiness
N	**Control**	5
	15 mins	5
	30 mins	5
Missing	**Control**	0
	15 mins	0
	30 mins	0
Mean	**Control**	2.20
	15 mins	3.20
	30 mins	5.00
Median	**Control**	2.00
	15 mins	3.00
	30 mins	5.00
Standard deviation	**Control**	1.30
	15 mins	1.30
	30 mins	1.58
Minimum	**Control**	1.00
	15 mins	2.00
	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

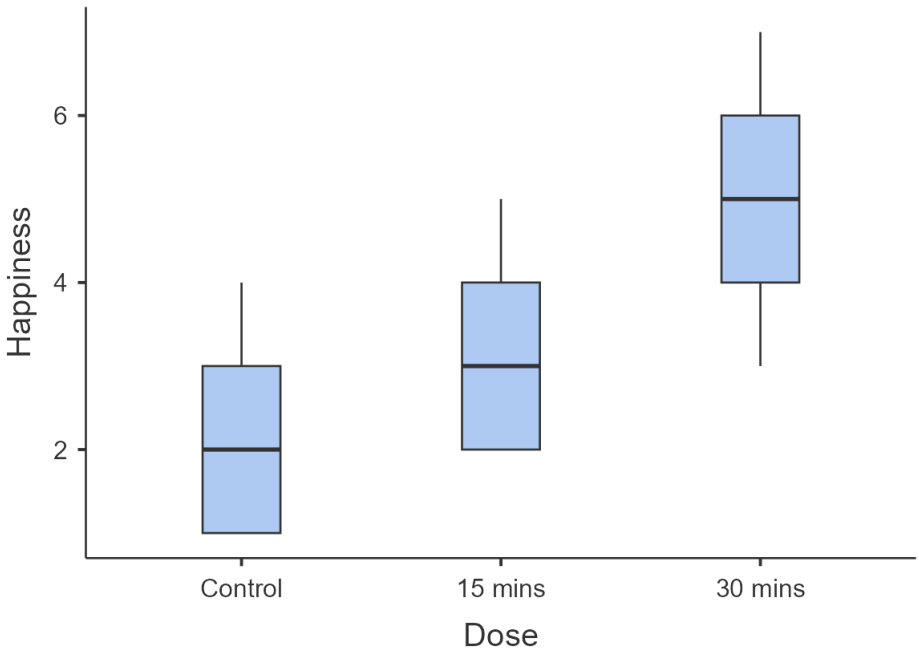
Descriptives

Shapiro-Wilk p	**Control**	0.421
	15 mins	0.421
	30 mins	0.967

Plots

Happiness





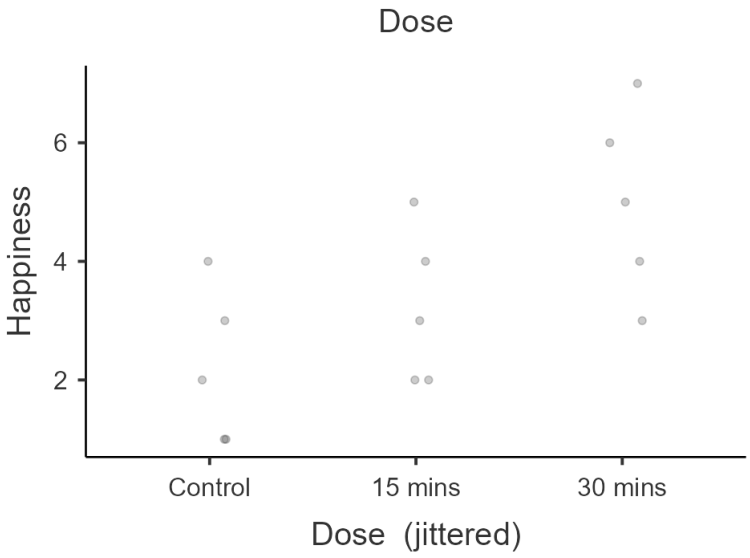
Relationships, Prediction, and Group Comparisons

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 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**	4.18	2	7.04	0.064
	Fisher's	4.99	2	11	0.029

Group Descriptives

	Dose	N	Mean	SD	SE
Happiness	**Control**	4	2.00	1.41	0.707
	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	0.914	0.182

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

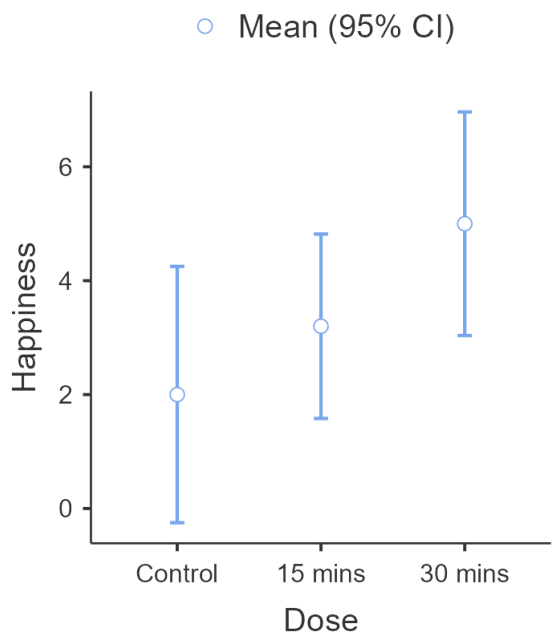
Homogeneity of Variances Test (Levene's)

	F	df1	df2	p
Happiness	0.0934	2	11	0.912

[3]

Plots

Happiness



Post Hoc Tests

Tukey Post-Hoc Test – Happiness

		Control	15 mins	30 mins
Control	**Mean difference**	—	-1.20	-3.00
	p-value	—	0.454	0.025
15 mins	**Mean difference**		—	-1.80
	p-value		—	0.164
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)

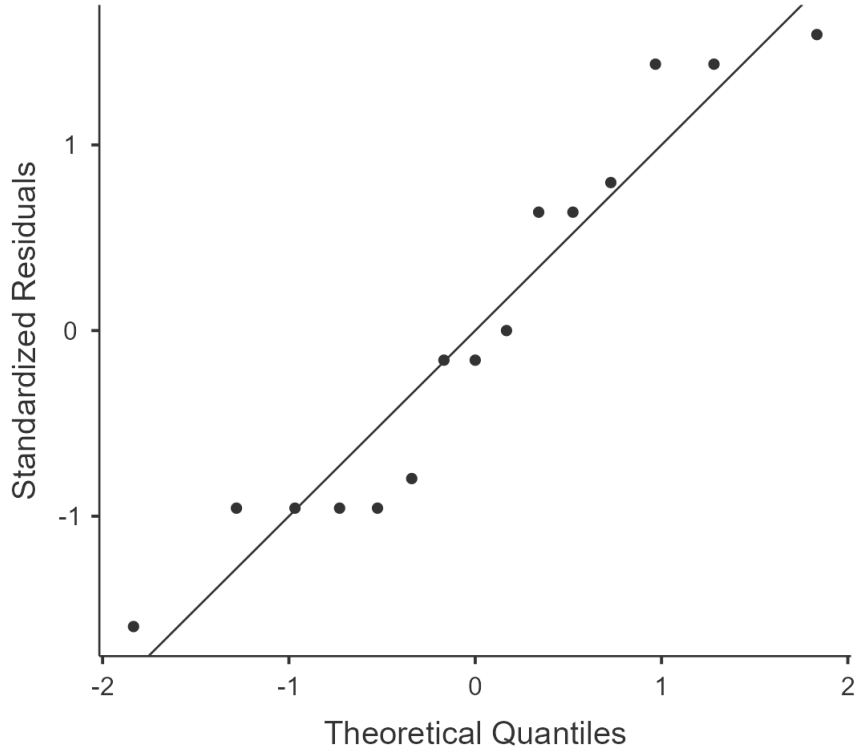
F	df1	df2	p
0.0917	2	12	0.913

[3]

Normality Test (Shapiro-Wilk)

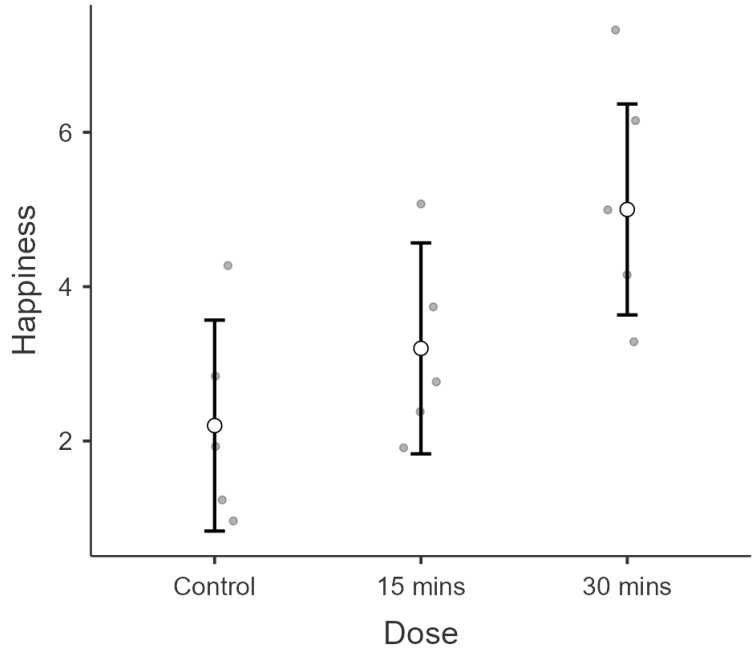
Statistic	p
0.917	0.171

Q-Q Plot



Estimated Marginal Means

Dose



[4]

Robust ANOVA

Robust ANOVA

	F	df1	df2	p	ES	Bootstrap CI	
						Lower	Upper
Dose	3.38	2.00	4.37	0.129	0.755	0.472	1.18

Note. Method of trimmed means (level 0.2).

Note. For effect size CI computation (samples 599)

Post Hoc Tests

Post Hoc Tests - Dose

				95% Confidence interval	
		psi-hat	p	Lower	Upper
Control	**15 mins**	-1.00	0.402	-4.85[a]	2.847[a]
	30 mins	-3.00	0.133	-6.85[a]	0.847[a]
15 mins	**30 mins**	-2.00	0.317	-6.32[a]	2.319[a]

[a] CI are adjusted to control FWE, but not p-values.

R

R

ANOVA

ANOVA - Happiness

	Sum of Squares	df	Mean Square	F	p
Dose	20.13	2	10.067	5.119	0.0247
Residuals	23.60	12	1.967		

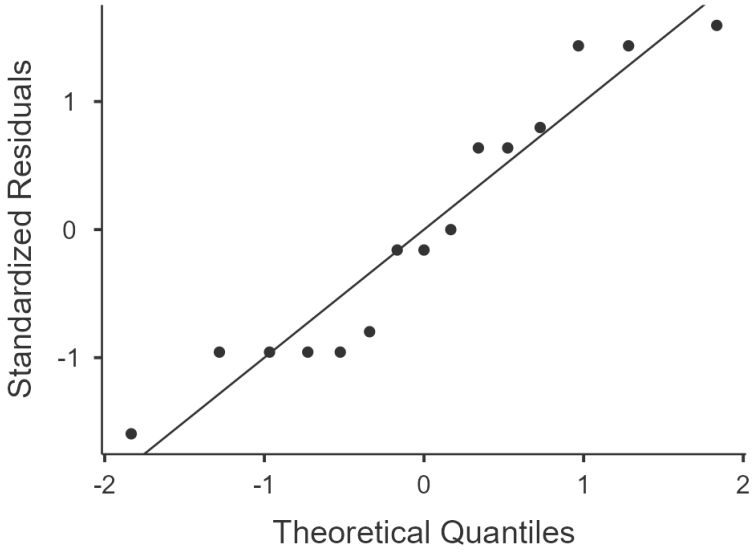
ASSUMPTION CHECKS

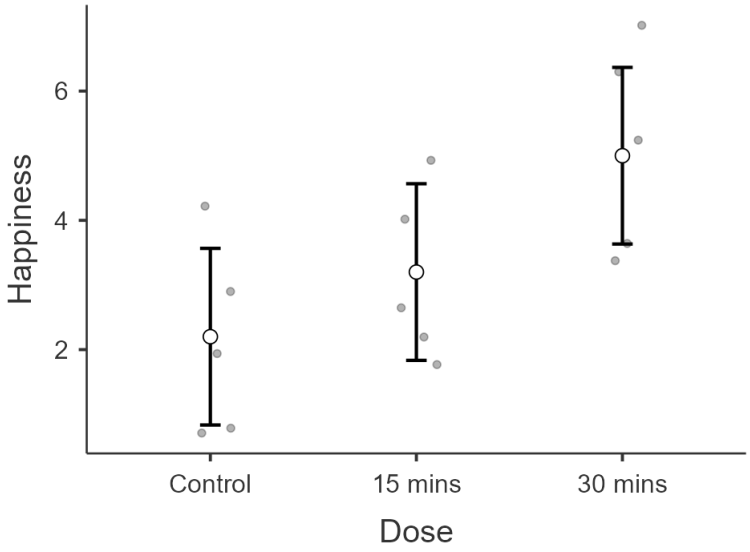
Homogeneity of Variances Test (Levene's)

F	df1	df2	p
0.09169	2	12	0.9130

Normality Test (Shapiro-Wilk)

Statistic	p
0.9167	0.1715





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[1] The jamovi project (2024). *jamovi*. (Version 2.6) [Computer Software]. Retrieved from https://www.jamovi.org.

[2] R Core Team (2024). *R: A Language and environment for statistical computing*. (Version 4.4) [Computer software]. Retrieved from https://cran.r-project.org. (R packages retrieved from CRAN snapshot 2024-08-07).

[3] Fox, J., & Weisberg, S. (2023). *car: Companion to Applied Regression*. [R package]. Retrieved from https://cran.r-project.org/package=car.

[4] Lenth, R. (2023). *emmeans: Estimated Marginal Means, aka Least-Squares Means*. [R package]. Retrieved from https://cran.r-project.org/package=emmeans.