Results

Descriptives

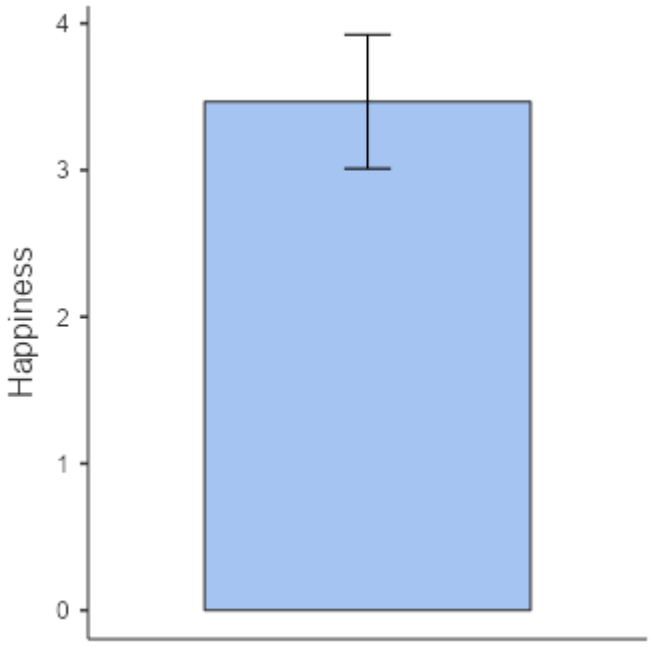
Descriptives

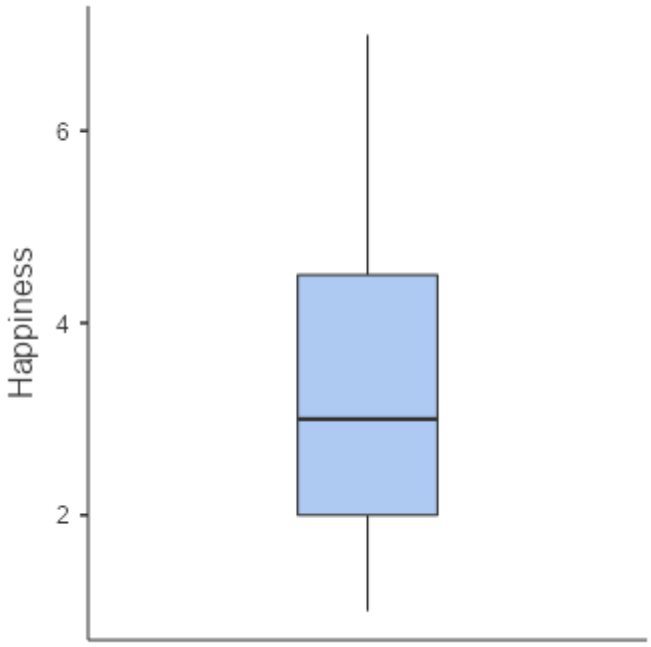
	Happiness	Dose	Person
N	15	15	15
Missing	0	0	0
Mean	3.47	2.00	8.00
Median	3.00	2	8
Mode	2.00 [a]	1.00 [a]	1.00 [a]
Standard deviation	1.77	0.845	4.47
Variance	3.12	0.714	20.0
Range	6.00	2	14
Minimum	1.00	1	1
Maximum	7.00	3	15
Skewness	0.422	0.00	0.00
Std. error skewness	0.580	0.580	0.580
Kurtosis	-0.431	-1.62	-1.20
Std. error kurtosis	1.12	1.12	1.12

[a] More than one mode exists, only the first is reported

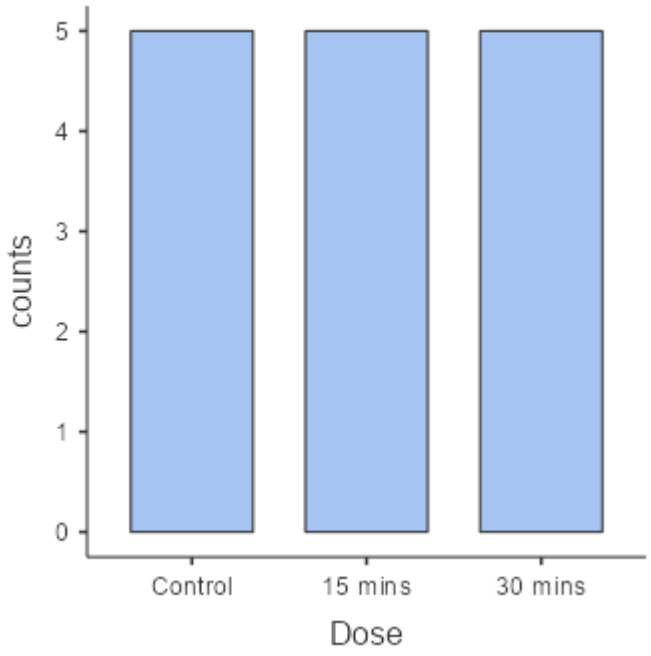
Plots

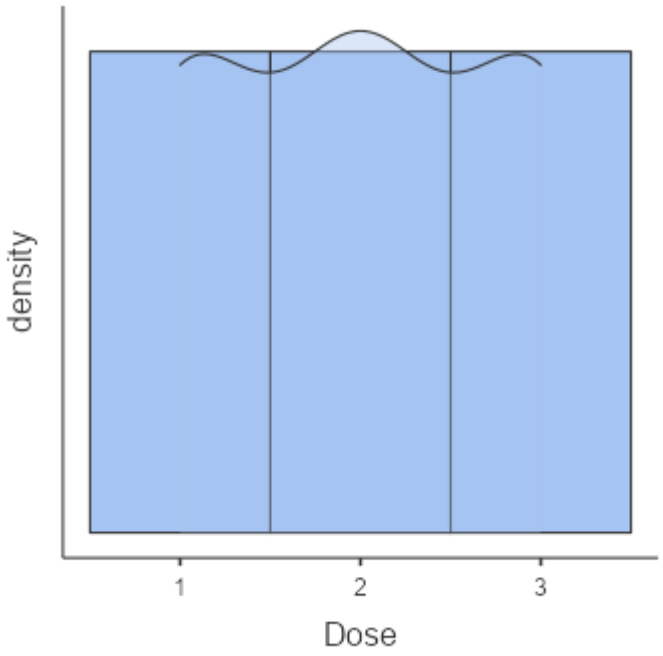
Happiness

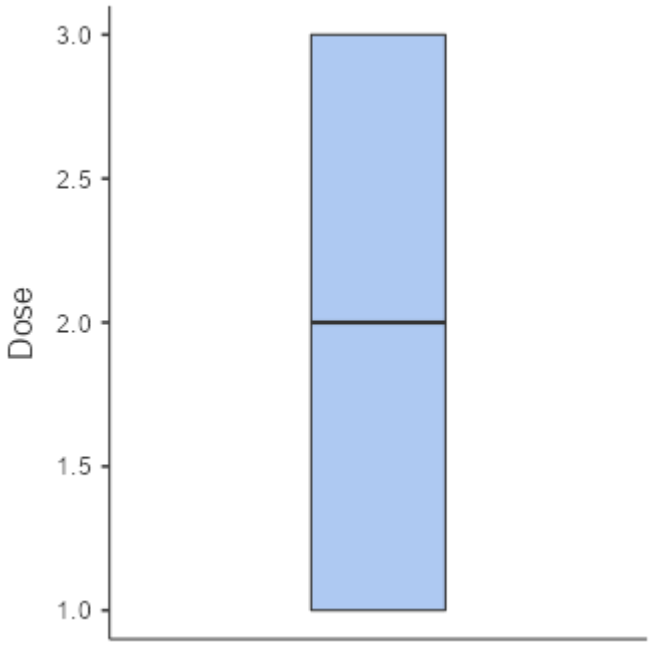




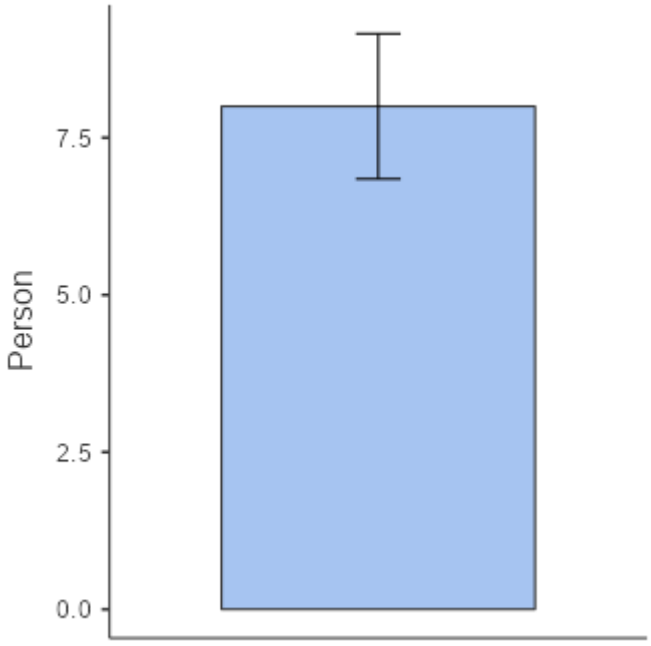
Dose

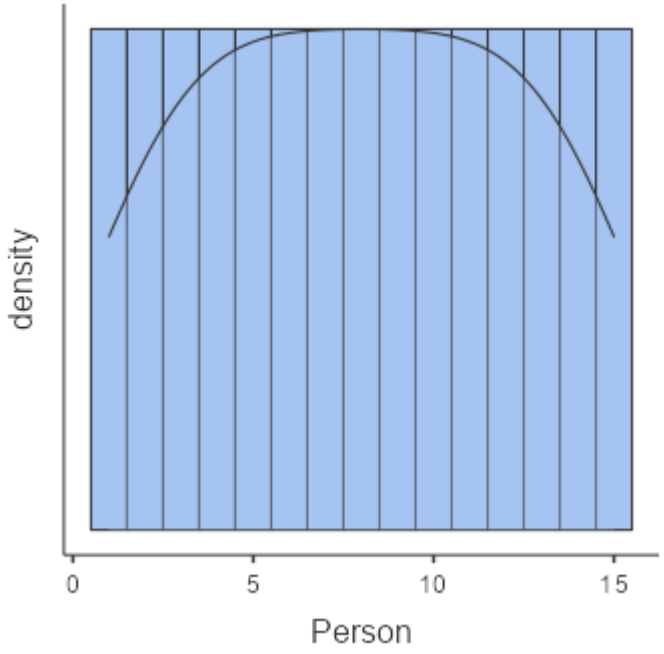

counts
5
4
3
2
1
0
Control
15 mins
30 mins
Dose

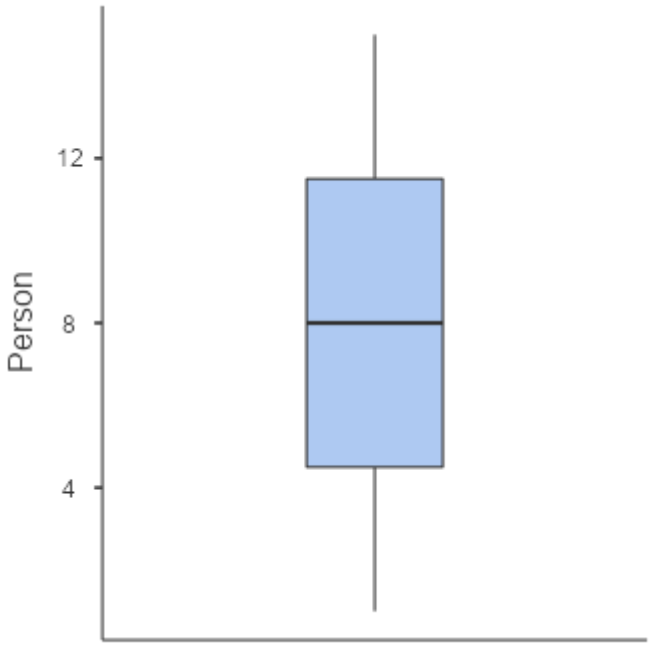

density
1
2
3
Dose



Person







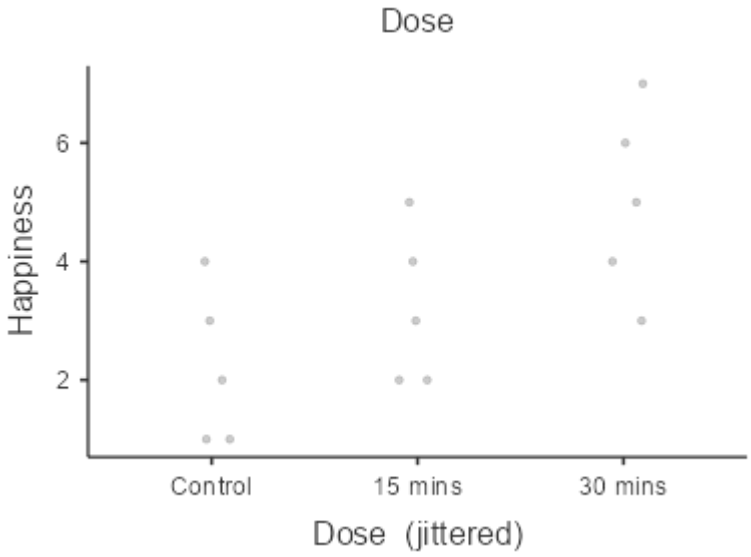
Relationships, Prediction, and Group Comparisons

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	4.32	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

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*

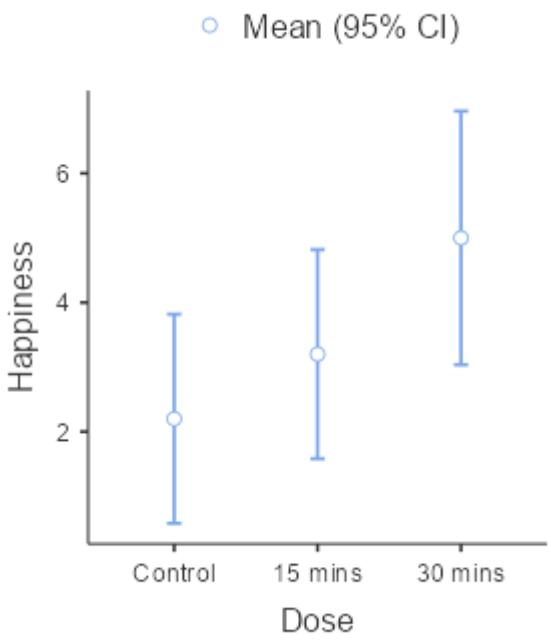
Normality Tests

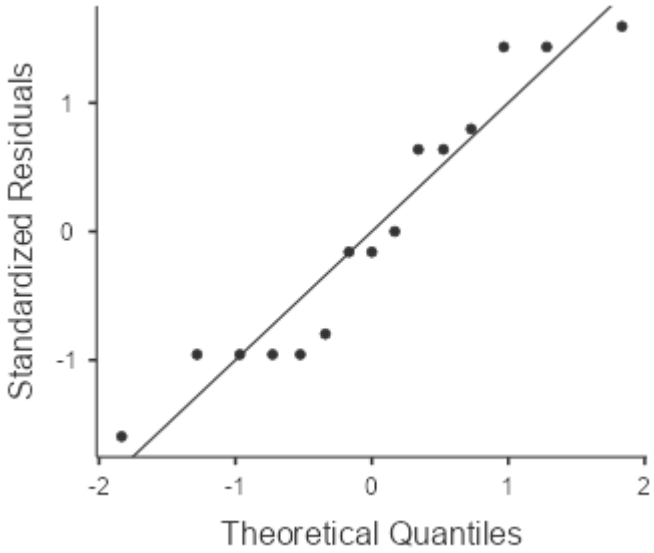
		statistic	p
Happiness	Shapiro-Wilk	0.917	0.171
	Kolmogorov-Smirnov	0.179	0.720
	Anderson-Darling	0.517	0.159

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 *
	t-value	—	-1.13	-3.16
	df	—	12.0	12.0
	p-value	—	0.516	0.021
15 mins	Mean difference		—	-1.80
	t-value		—	-2.03
	df		—	12.0
	p-value		—	0.147
30 mins	Mean difference			—
	t-value			—
	df			—
	p-value			—

Note. * p < .05, ** p < .01, *** p < .001

ANOVA

ANOVA - Happiness

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

[3]

Assumption Checks

Homogeneity of Variances Tests

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

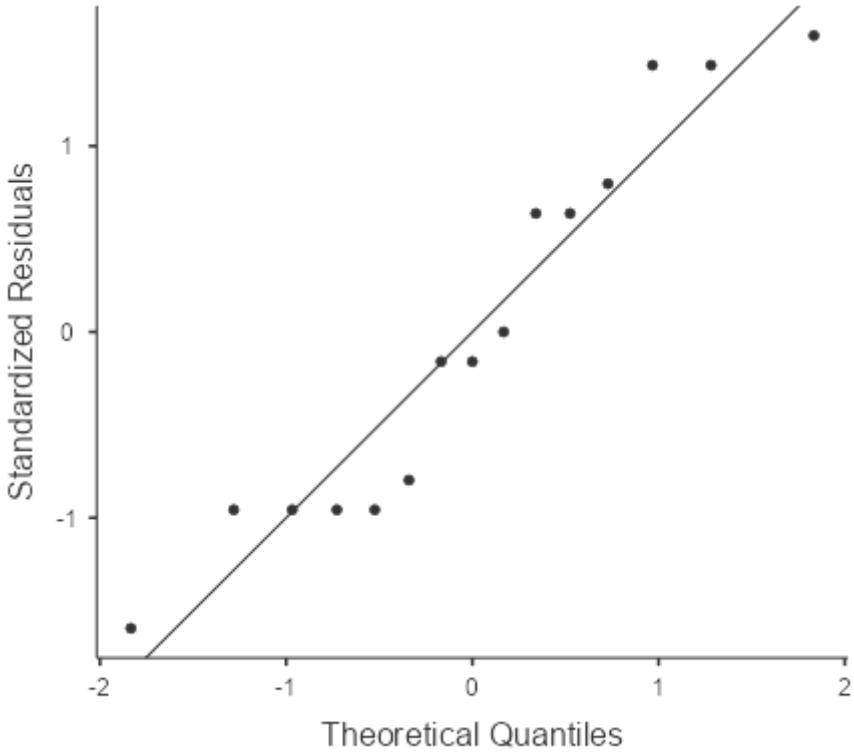
Note. Additional results provided by *moretests*

Normality tests

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

Note. Additional results provided by *moretests*

Q-Q Plot



Post Hoc Tests

Post Hoc Comparisons - Dose

Comparison									95% Confidence Interval	
Dose		Dose	Mean Difference	SE	df	t	p_{tukey}	Cohen's d	Lower	Upper
Control	-	15 mins	-1.00	0.887	12.0	-1.13	0.516	-0.713	-2.13	0.701
	-	30 mins	-2.80	0.887	12.0	-3.16	0.021	-1.997	-3.64	-0.357
15 mins	-	30 mins	-1.80	0.887	12.0	-2.03	0.147	-1.284	-2.78	0.208

Note. Comparisons are based on estimated marginal means

[4]

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

				95% Confidence interval	
		psi-hat	p	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.

[4] Lenth, R. (2020). *emmeans: Estimated Marginal Means, aka Least-Squares Means*. [R package]. Retrieved from https://cran.r-project.org/package=emmeans.