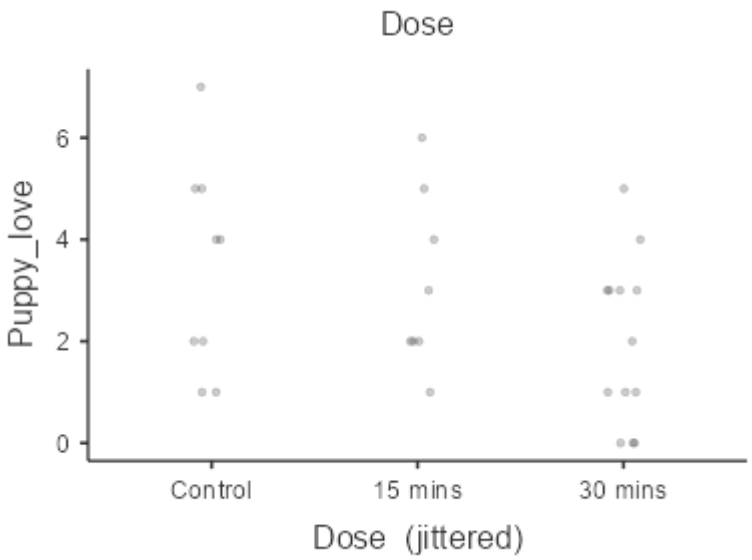
Results

Relationships, Prediction, and Group Comparisons

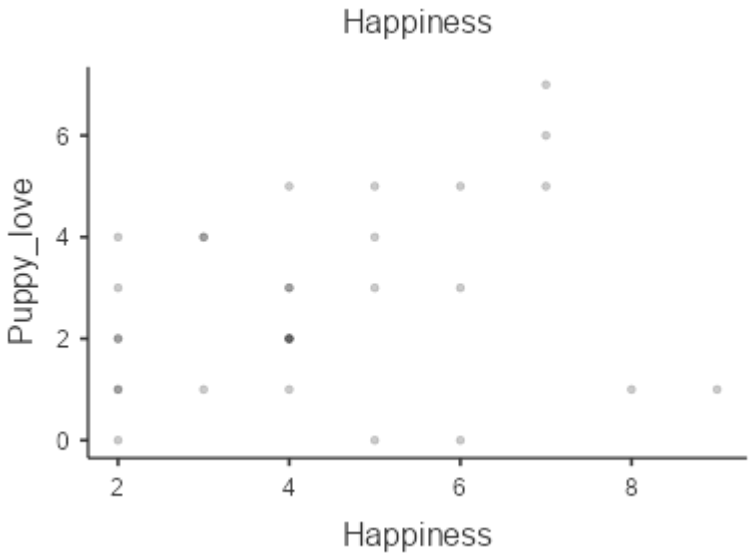
You have entered a numeric dependent variable, one or more categorical (nominal/ordinal) independent variables, and one or more numeric control variables. Hence, an ANCOVA seems to be a good option for you! In order to run this analysis in jamovi, go to: ANOVA > ANCOVA

- Drop your numeric dependent variable in the box below Dependent Variable
- Drop your nominal/ordinal independent variables in the box below Fixed Factors
- Drop your numeric control variables in the box below Covariates

Scatter Plots of Bivariate Relationships - Dependent/Independent Variables



Scatter Plots of Bivariate Relationships - Dependent/Control Variables



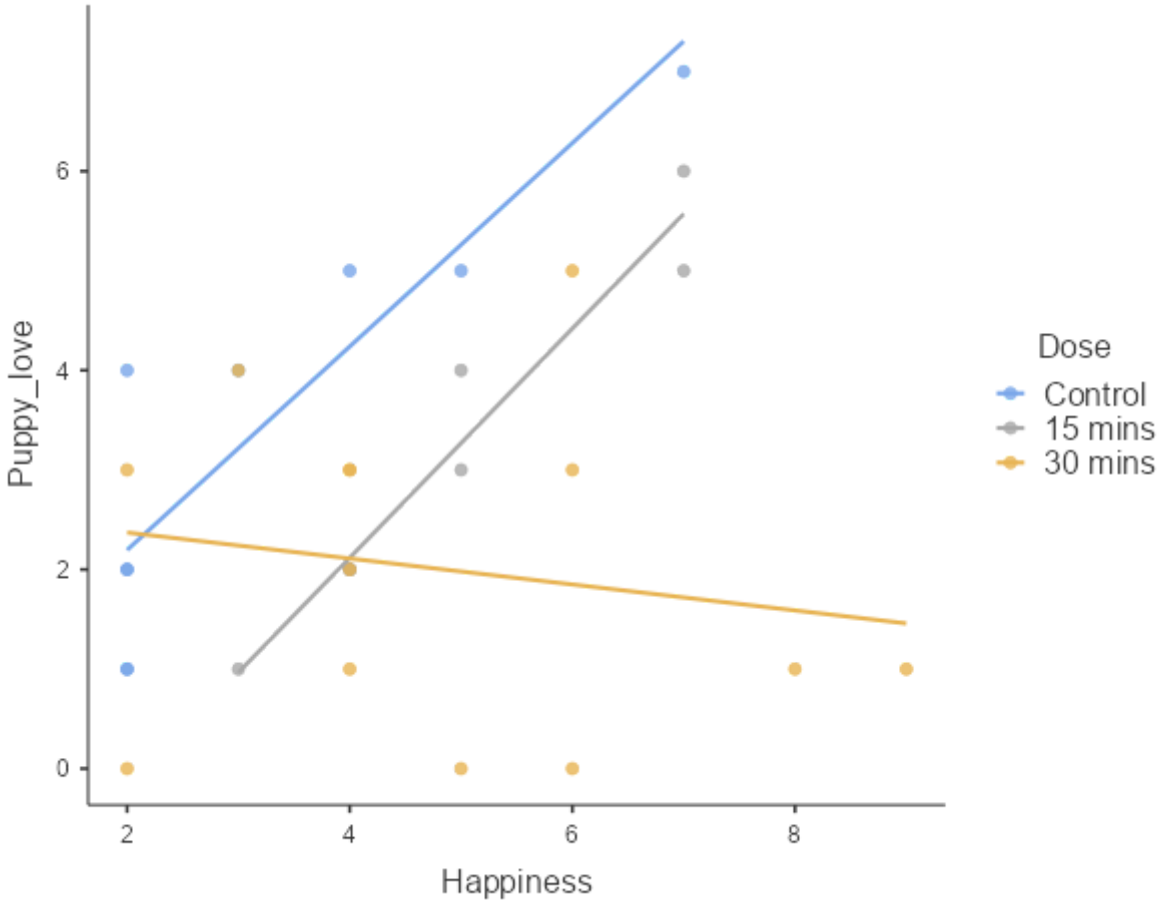
ANOVA

ANOVA - Puppy_love

	Sum of Squares	df	Mean Square	F	p
Dose	12.8	2	6.38	1.98	0.158
Residuals	87.1	27	3.23		

[3]

Scatterplot



ANCOVA

ANCOVA - Happiness

	Sum of Squares	df	Mean Square	F	p
Dose	36.6	2	18.28	7.48	0.003
Puppy_love	17.2	1	17.18	7.03	0.014
Dose ✻ Puppy_love	20.4	2	10.21	4.18	0.028
Residuals	58.6	24	2.44		

[3]

ANCOVA

ANCOVA - Happiness

	Sum of Squares	df	Mean Square	F	p	ω^2
Dose	25.2	2	12.59	4.14	0.027	0.156
Puppy_love	15.1	1	15.08	4.96	0.035	0.098
Residuals	79.0	26	3.04			

[3]

Assumption Checks

Homogeneity of Variances Test (Levene's)

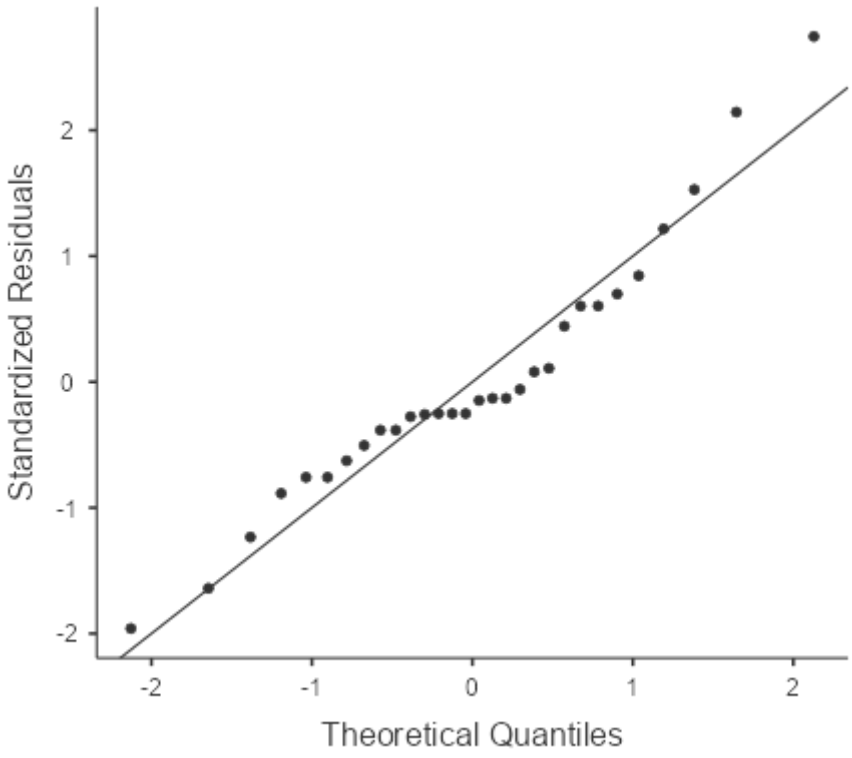
F	df1	df2	p
4.62	2	27	0.019

[3]

Normality Test (Shapiro-Wilk)

Statistic	p
0.943	0.111

Q-Q Plot



Contrasts

Contrasts - Dose

	Estimate	SE	t	p
15 mins - Control	1.79	0.849	2.10	0.045
30 mins - Control	2.22	0.803	2.77	0.010

Post Hoc Tests

Post Hoc Comparisons - Dose

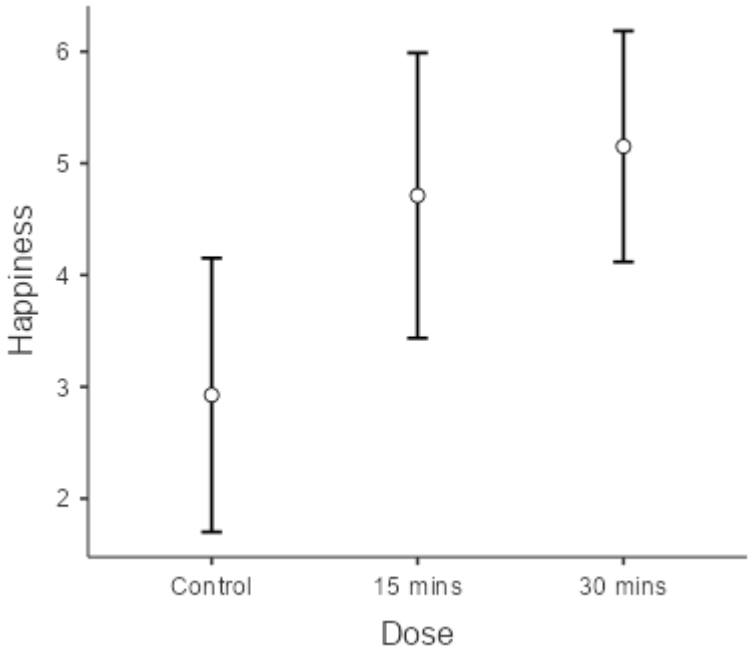
Comparison								
Dose		Dose	Mean Difference	SE	df	t	p_{tukey}	$p_{bonferroni}$
Control	-	15 mins	-1.786	0.849	26.0	-2.102	0.109	0.136
	-	30 mins	-2.225	0.803	26.0	-2.771	0.027	0.031
15 mins	-	30 mins	-0.439	0.811	26.0	-0.541	0.852	1.000

Note. Comparisons are based on estimated marginal means

[4]

Estimated Marginal Means

Dose



Estimated Marginal Means - Dose

			95% Confidence Interval	
Dose	Mean	SE	Lower	Upper
Control	2.93	0.596	1.70	4.15
15 mins	4.71	0.621	3.44	5.99
30 mins	5.15	0.503	4.12	6.18

[4]

References

[1] The jamovi project (2021). *jamovi*. (Version 2.2) [Computer Software]. Retrieved from https://www.jamovi.org.

[2] R Core Team (2021). *R: A Language and environment for statistical computing*. (Version 4.0) [Computer software]. Retrieved from https://cran.r-project.org. (R packages retrieved from MRAN snapshot 2021-04-01).

[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.