

NonParametric Statistical Tests

Name (Test Statistic)	Purpose	Measurement Level*	
		IV	DV
Chi-Square Goodness of Fit (χ^2)	To test the predicted value of a proportion for a population.	----	N
Chi-Square Test of Independence (χ^2)	To test the difference in proportions in 2+ independent groups.	N	N
Fisher's Exact Test	To test the difference in proportions (2 x 2 table) when expected frequency for a cell < 5.	N	N
McNemar Test (χ^2)	To test the difference in proportions for 2 related groups (2 x 2 design).	N	N
Cochran's Q Test (Q)	To test the difference in proportions for 3+ related groups.	N	N
Mann-Whitney U-Test (U)	To test the difference in the ranks of scores of 2 independent groups.	N	O
Kruskal-Wallis Test (H)	To test the difference in the ranks of scores of 3+ independent groups.	N	O
Wilcoxon Signed Ranks Test (T or z)	To test the difference in the ranks of scores of 2 related groups.	N	O
Friedman Test (χ^2)	To test the difference in the ranks of scores of 3+ related groups.	N	O
Spearman's Rank Order Correlation (r_s)	To test the existence of a relationship/correlation between two variables.	O	O
Kendall's Tau (τ)	To test the existence of a relationship/correlation between two variables.	O	O

*Measurement level of the independent variable (IV) and Dependent Variable (DV); N = Nominal, O = Ordinal