Table 26-2 One-Way ANOVA: Change in Pain-Free ROM with Treatment for Elbow Tendinitis

One-Way ANOVA data from Table 25-1. This same dataset is used for Tables 26-2, 26-4, 26-5, and 26-6

```
ONEWAY ROM BY Group
  /STATISTICS DESCRIPTIVES HOMOGENEITY
  /PLOT MEANS
  /MISSING ANALYSIS.
```

Oneway
Run using Compare Means > One-Way ANOVA (does not generate power analysis)

Descriptives

ROM

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean Lower Bound	95% Confidence Interval for Mean Upper Bound	Minimum	Maximum
Ice	11	44.18	10.870	3.278	36.88	51.48	23	58
NSAID	11	45.27	8.403	2.534	39.63	50.92	29	56
Splint	11	35.27	9.509	2.867	28.88	41.66	19	49
Rest	11	24.09	8.538	2.574	18.36	29.83	14	37
Total	44	37.20	12.487	1.883	33.41	41.00	14	58

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
ROM	Based on Mean	.329	3	40	.804
	Based on Median	.168	3	40	.917
	Based on Median and with adjusted df	.168	3	36.295	.917
	Based on trimmed mean	.305	3	40	.821

ANOVA

ROM

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3184.250	3	1061.417	12.058	.000
Within Groups	3520.909	40	88.023		
Total	6705.159	43			

Means Plots
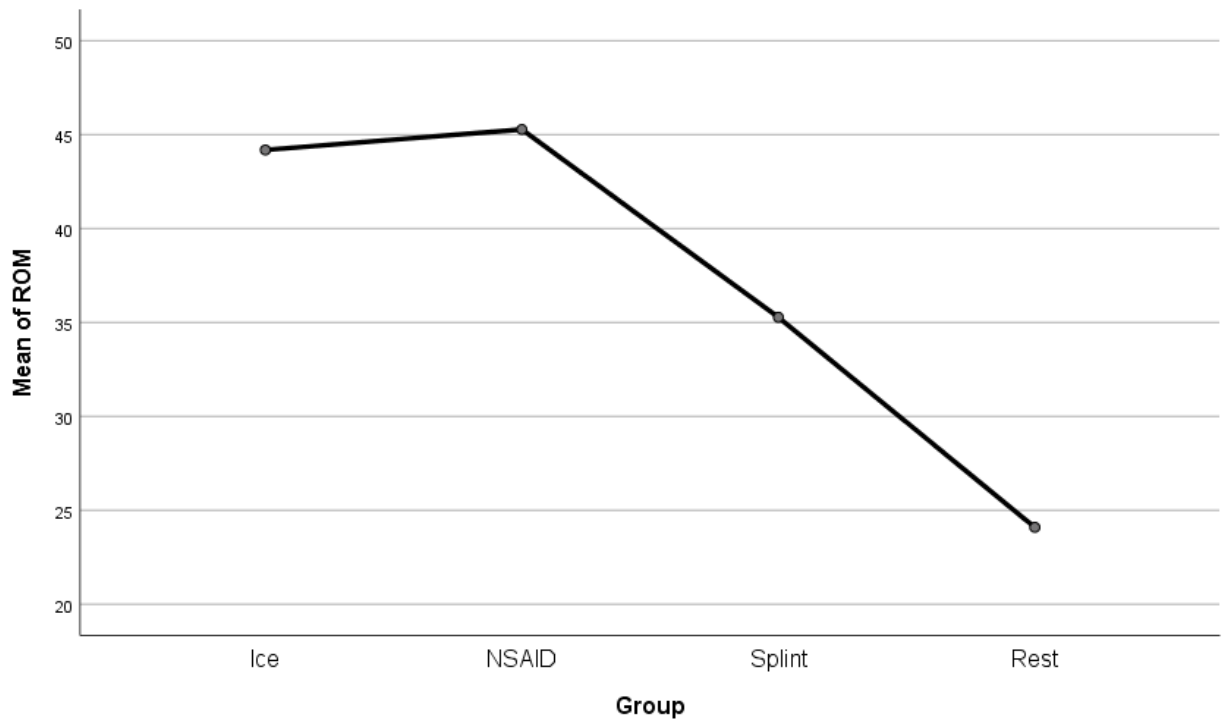

```
UNIANOVA ROM BY Group
  /METHOD=SSTYPE(3)
  /INTERCEPT=INCLUDE
  /PRINT ETASQ DESCRIPTIVE HOMOGENEITY OPOWER
  /CRITERIA=ALPHA(.05)
  /DESIGN=Group.
```

Univariate Analysis of Variance
Run using General Linear Model > Univariate to obtain effect size and power

Between-Subjects Factors

		Value Label	N
Group	1	Ice	11
	2	NSAID	11
	3	Splint	11
	4	Rest	11

Descriptive Statistics

Dependent Variable: ROM

Group	Mean	Std. Deviation	N
Ice	44.18	10.870	11
NSAID	45.27	8.403	11
Splint	35.27	9.509	11
Rest	24.09	8.538	11
Total	37.20	12.487	44

Levene's Test of Equality of Error Variances[a,b]

		Levene Statistic	df1	df2	Sig.
ROM	Based on Mean	.329	3	40	.804
	Based on Median	.168	3	40	.917
	Based on Median and with adjusted df	.168	3	36.295	.917
	Based on trimmed mean	.305	3	40	.821

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Dependent variable: ROM

b. Design: Intercept + Group

Tests of Between-Subjects Effects

Dependent Variable: ROM

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power
Corrected Model	3184.250[a]	3	1061.417	12.058	.000	.475	36.175	.999
Intercept	60903.841	1	60903.841	691.910	.000	.945	691.910	1.000
Group	3184.250	3	1061.417	12.058	.000	.475	36.175	.999
Error	3520.909	40	88.023					
Total	67609.000	44						
Corrected Total	6705.159	43						

a. R Squared = .475 (Adjusted R Squared = .436)

b. Computed using alpha = .05