

### Tests of Normality

	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
IRLSdiff	0.156	10	0.200*	0.916	10	0.327
RLSOrddiff	0.261	10	0.052	0.921	10	0.362

\*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

First, we check to make sure the difference scores between the pre and post observations are normally distributed. They are normal according to the Shapiro-Wilk tests. Now, we can use repeated-measures t-tests.

### Paired Samples Statistics

		Mean	N	Std. Deviation
Pair 1	IRLSPre	25.80	10	5.051
	IRLSPost	8.00	10	7.272
Pair 2	RLSOrdPre	5.20	10	1.874
	RLSOrdPost	1.40	10	1.647

Here are the means and standard deviations for the two observations of each outcome.

### Paired Samples Test

	Mean	Paired Differences 95% Confidence Interval of the Difference		t	df	Significance
		Lower	Upper			Two-Sided p
Pair 1 IRLSPre - IRLSPost	17.800	11.676	23.924	6.575	9	<0.001
Pair 2 RLSOrdPre - RLSOrdPost	3.800	2.338	5.262	5.879	9	<0.001

There were significant decreases in both outcomes,  $p < 0.001$ .

## Statistical Methods

The International Restless Leg Syndrome Rating Scale (IRLS) was administered at baseline and post-intervention (the ten question survey and the RLS ordinal scale). The Patient Global Impression of Change (PGIC; two questions) was administered only at post-intervention. All survey instruments were scored and interpreted according to their respective scoring rubrics. The distributions of the baseline observations for the IRLS and the RLS ordinal scale were subtracted from the post-intervention observations to yield a new distribution of difference scores. The distributions of difference scores were checked for the assumption of normality using Shapiro-Wilk tests. When the assumption was met, parametric repeated-measures *t*-tests were used to test for significant change across time for each outcome measure. Means (*M*) and standard deviations (SD) were reported and interpreted for each observation of each outcome. The mean difference and the 95% confidence interval (95% CI) of the difference were also reported. Medians and interquartile ranges were reported for the two questions associated with the PGIC. Statistical significance was assumed at an alpha value of 0.05 and all analyses were performed using SPSS Version 29 (Armonk, NY: IBM Corp.).

## Statistical Results

A total of  $n = 11$  participants were enrolled in the study. One (1) participant was removed from the analysis due to a screening failure. This led to a final sample size of  $n = 10$  for purposes of analysis. For the first PGIC question, there was a median value of 6.50, with an interquartile range of 5.00 – 7.00. For the second question, the median value was 0.00 with an interquartile range of 0.00 – 1.00. The difference score distributions for the IRLS ( $p = 0.33$ ) and the RLS ordinal scale ( $p = 0.36$ ) both met the assumption of normality. There was a statistically significant decrease in IRLS scores from baseline ( $M = 25.80$ ,  $SD = 5.05$ ) to post-intervention ( $M$

= 8.00, SD = 7.27),  $t(9) = 6.58$ ,  $p < 0.001$ , mean difference = 17.80, 95% CI of the difference = 11.68 – 23.92. There was also a statistically significant decrease in RLS ordinal ratings from baseline ( $M = 5.20$ , SD = 1.87) to post-intervention ( $M = 1.40$ , SD = 1.65),  $t(9) = 5.88$ ,  $p < 0.001$ , mean difference = 3.80, 95% CI of the difference = 2.34 – 5.26. See Table 2 for the descriptive statistics associated with these analyses and Figures 1 and 2 for graphical depictions of the differences related to each outcome.

Table 1.

PGIC Questions

PGIC Question	<i>Mdn</i> (IQR)
Question 1	6.50 (5.00 – 7.00)
Question 2	0.00 (0.00 – 1.00)

Note: *Mdn* (IQR) – Median (interquartile range)

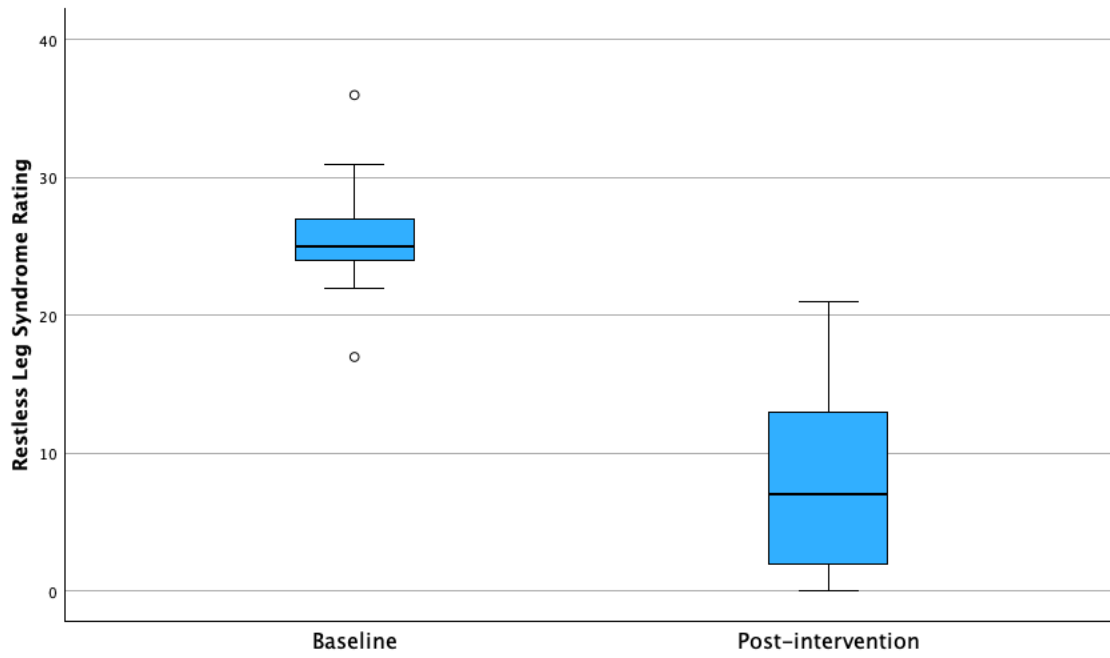
Table 2.

Repeated-Measures *t*-tests

Outcome	Baseline ( <i>M</i> , <i>SD</i> )	Post-intervention ( <i>M</i> , <i>SD</i> )	Mean difference (95% CI)	<i>p</i> -value
IRLS	25.80 (5.05)	8.00 (7.27)	17.80 (11.68 – 23.92)	< 0.001
RLS Ordinal Scale	5.20 (1.87)	1.40 (1.65)	3.80 (2.34 – 5.26)	< 0.001

Figure 1.

IRLS Across Time



Note: Small circles denote outliers at 1.5X the interquartile range

Figure 2.

RLS Ordinal Scale Across Time

