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Statistical Analysis Plan

Study Title: Mirror Therapy and Treadmill Training for Patients with Chronic Stroke. A Pilot Randomised Controlled Trial

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Statistical Analysis Plan for Mirror Therapy and Treadmill Training (Patrick Broderick, IT Sligo, Ireland).

All data was analysed using IBM SPSS Statistics 23 for Windows. Conformity to the normal distribution of variables was tested using a combination of the Shapiro-Wilk test and visual assessment (histograms). Demographic characteristics and outcome variables are described as mean ± SD. Groups were compared at baseline using the independent samples t-test for the continuous variables, and the chi-square test for categorical data. Intention-to-treat analysis was used and patients were excluded from a given analysis if their corresponding measurement was missing. The paired samples t-test and the Wilcoxin signed rank test were used to analyse within-subject differences (T1 vs T2 vs T3). Between-subject differences (MT vs PL) were analysed using the independent samples t-test and the Mann-Whitney U test. The interaction of group and time determined the effectiveness of mirror therapy on outcome measures. All tests were conducted on a 5% significance level. Effect sizes for non-parametric tests were calculated using r. Effect sizes for parametric tests were calculated using Cohens's d for within-group analysis and r for between group analysis. Cohens d values of 0.2, 0.5, and 0.8 were interpreted as small, medium, and large respectively; r values of 0.1, 0.3, and 0.5 were defined as small, medium and large.