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Statistical Analysis Plan

Study Title: Unilateral Strength Training and Mirror Therapy for Enhancing Upper Limb Motor Function Post Stroke: A Pilot Randomised Controlled Trial

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Statistical Analysis Plan for Unilateral Strength Training and Mirror Therapy for the Upper Limb in Chronic Stroke Patients (Monika Ehrensberger, IT Sligo, Ireland).

Data were analysed using the Statistical Package for Social Sciences (SPSS) for Windows (Version X, Chicago, IL, USA). All variables were tested for conformity to normal distribution using a combination of the visual method (histograms) and the Shapiro-Wilk test. Demographic characteristics and outcome variables are described as mean \pm SD. Possible differences between groups at baseline were analysed using the independent-t-test, Mann-Whitney U test or Chi-square test. Between group differences (ST vs MST) in change from T1 to T2 and in change from T1 to T3 were determined using the independent-sample-t-test (normal distribution) or the Mann-Whitney U test (non-normal distribution or non-continuous scale). Within group differences (T1 vs T2/ T1 vs T3) were determined using the paired-sample-t-test (normal distribution) or the Wilcoxon Signed Rank Test (non-normal distribution or non-continuous scale). P-values < 0.05 were considered to be statistically significant. Between group effect sizes, the difference in means and pooled SD was calculated using an online calculator (<https://www.uccs.edu/~lbecker/>) for parametric tests or $r=Z/\sqrt{n}$ for non-parametric tests. Within group effect size was calculated as paired differences Cohen's $d = \text{mean}/Sd$ for parametric tests or $r=Z/\sqrt{n}$ for non-parametric tests. Values for Cohen's $d = 0.2, 0.5$, and 0.8 were interpreted as small, medium, and large respectively; $0.1, 0.3$, and 0.5 were defined as small, medium and large for r .