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Implementation of the dart-throwing motion plane in hand therapy after distal radius fractures: preliminary results

Statistical Analysis Plan

Radiological measurements were performed considering radial height, radial inclination, volar tilt, intra-articular step-off and ulnar variance, both preoperatively and postoperatively. For each subject, the researchers calculated the residual deficit in all of the parameters between the evaluation post treatment and the evaluation at baseline (percentage = 100 – post / pre · 100). For the pinch and grip strength tests, measured post treatment, the researchers calculated the percentages of the values of the injured hand in relation to the uninjured hand (percentage = injured / uninjured · 100).

Statistical analyses were performed in IBM SPSS software, v25 (IBM, Armonk, NY). The Shapiro-Wilk test of normality was used on all acquired variables. The majority of variables were not normally-distributed so a-parametric tests were applied. Descriptive statistics were used to describe the personal characteristics of the subjects in both groups (the received treatment, age, sex, injured hand, hand dominance and fracture pattern). The researchers used the Chi-Square test for categorical variables and the Mann-Whitney U test for numeric variables, when comparing parameters between groups. Significance was set at $p<0.05$.