Can end-of-treatment outcomes be predicted by reassessment of signs or symptoms within one or two treatments?

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Precise treatment application relies on feedback that is directly related to the desired outcomes. Little is known, however about relationships between reassessments used in clinical practice and outcomes at end-of-treatment. Within-session changes when pain intensity (ΔPAIN), pain location (Centralization) and of range of movement (ΔROM) are reassessed predict some between-session changes and reassessing centralization predicts end-of-treatment outcomes for some interventions. We investigated the ability of reassessments within the first two treatment sessions to predict end-of-treatment outcomes for patients (N=28) receiving manual therapy treatment (average 3.4 treatments). Measures for reassessment (ΔPAIN, Centralization, global perception of change and ΔROM) were recorded before and after each treatment. End-of-treatment outcomes were assessed by changes in pain intensity, Patient Specific Functional Scale, Neck Disability Index and global perception of change. The ability of reassessments within the first two treatment sessions to predict end-of-treatment outcomes were analysed using Pearson correlation coefficients and regression trees. Subjects were also categorized as improved or not improved and groups compared using ANOVA and classification trees. Each of the reassessments at some time in the first two treatment sessions predicted at least one of the end-of-treatment outcomes. No reassessment or combination of reassessments in the first two treatments was able to predict treatment outcomes as determined by more than one outcome measure. Interestingly there was little relationship between the four end-of-treatment outcome measures. The small sample size may account for the small number of significant results. The advantages of using the statistical tools of classification and regression trees will be discussed.