Statistical Analysis Plan

Home-based Resistance Training to Patients With Type 2 Diabetes

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The results of this study were archived and analyzed with SPSS 22 package software, and the statistical significance level of Type I error was set at $P<0.05$, and the power was set at 80%. Every time the case data collection is completed, the data input and file building are completed on the same day. Before the data is analyzed, the distribution of each variable will be checked for outliers and missing values. Those who quit halfway are also encouraged to fill out the post-test questionnaire.

The basic attributes and disease characteristics of the research objects are presented in the form of frequency distribution, percentage, average value, and standard deviation. One-way ANOVA or Chi-Square test was used to examine the homogeneity of demographics, disease characteristics and pretest data of research variables among the groups. One-way ANOVA was used to examine the differences in blood glucose, body composition, muscle strength, physical activity, and self-efficacy scores between different groups between the sixth week and the 12th week. The t-test was used to examine the difference in exercise compliance between the behavioral intervention group and the home resistance training group. The generalized estimating equation (GEE) was used to analyze the differences in blood glucose, body composition, muscle strength, physical activity, and self-efficacy over time among different groups.