

**Title:**

A RANDOMIZED CONTROLLED TRIAL COMPARING TRAINING PROGRAMS DESIGNED TO IMPROVE AWARENESS, ATTITUDES, AND EMPATHY TOWARD INDIVIDUALS WITH DISABILITIES IN NURSING STUDENTS

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Statistical Analysis Plan

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## Statistical Analysis Plan

Statistical analyses will be conducted using the SPSS v25.0 software package. In this study, descriptive statistics will include frequency (n) and percentage (%) values for evaluating categorical variables. Shapiro-Wilk normality tests will be used to assess the normality of numerical variables. As descriptive statistics, the mean  $\pm$  standard deviation will be provided for variables following a normal distribution and the median (minimum–maximum) values for those not following a normal distribution. The appropriate hypothesis testing methods planned for use in the study will be the “Pearson Chi-Square” test where the necessary assumptions for analyzing categorical variables are met, and the “Freeman-Halton test (Fisher’s Exact Test)” where these assumptions are not met. Due to the repeated measures design, changes over time in the primary/secondary outcome variables (total scores and/or subscale scores of the Disability Awareness Scale, the Multidimensional Attitude Scale toward People with Disabilities, and the Multidimensional Empathy Scale) will be assessed using a linear mixed effects model. In the model, group (Intervention 1/Intervention 2/control), time (pre-test–mid-test–post-test) and the group $\times$ time interaction will be defined as fixed effects; a participant random intercept will be included in the model to account for the dependency arising from repeated measurements of participants. To accurately reflect the dependency created by repeated measurements within the same individual, the covariance structure will be determined by comparing the options of composite symmetry (CS), autoregressive AR(1), and, where appropriate, unstructured (UN), and the structure providing the best fit according to fit criteria such as AIC/BIC will be selected. To determine whether there is a difference between two independent groups regarding quantitative variables, the “Student’s t-test” will be used if the assumptions of parametric tests are met, and the “Mann-Whitney U test” if they are not. To determine whether there is a difference between two dependent groups regarding quantitative variables, the “Paired t-test” will be used if the assumptions of parametric tests are met, and the “Wilcoxon signed-rank test” if they are not. The relationship between variables will be examined using the Pearson correlation test where the assumptions of parametric tests are met and the Spearman correlation test where they are not. In all hypothesis tests, the probability of a Type I error will be set at  $\alpha=0.05$ .