RECONNECT - Treatments for Complex PTSD

30.09.2026

Power calculations and statistical analysis

We based our sample size calculation on a previous study with a similar population (Acierno et al., 2017), conservatively expecting to detect a non-inferiority margin of 6 on the ITQ. Simulation analyses indicated that we would need a total sample size of 252 to achieve 80% power at a 5% significance level. Accounting for an overall expected dropout rate of 25%, we would aim to recruit 315 patients. For predictor and moderator analyses of the slope during the three measurement time points, we would need 86-90 patients in each arm to detect medium effect sizes (Cohen's f = 0.25) with 80% power at a significance level of 5%. If more than 5% are missing, multiple imputation will be used to handle missing data using the software package "mice" (Buuren & Groothuis-Oudshoorn, 2011). We perform all statistical analyses under the intention to treat principle. Linear mixed models will be used to test whether there is a difference in the three interventions (between-subjects level) across the three time points (within-subjects level) accounting for the correlation induced by the participants attending the same clinic. Sensitivity analyses will examine whether missingness is associated with specific participant characteristics (e.g., educational level and symptom severity) to assess the potential for systematic attrition bias. In addition, complete-case analyses will be conducted and compared with analyses based on the imputed dataset to evaluate the robustness of the findings and identify any potential bias introduced by the imputation procedure.