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Offical Title: *The Effect of Digital Parenting Education Provided to Mothers on Social Media Addiction and Their Knowledge and Attitudes Regarding Their Children's Technology Use*

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NCT Number: Not yet assigned

Statistical Analysis Plan

In this study, the effect of digital parenting education on parents' social media use and internet addiction will be evaluated. The research will be conducted using a randomized controlled trial with a pretest- posttest control group design. Statistical analyses have been planned to test the study hypotheses and to examine changes over time and differences between groups.

The analysis will begin with descriptive statistics for the demographic characteristics of the participants. Sociodemographic variables such as age, gender, and educational level will be reported using descriptive measures including frequency, percentage, mean, and standard deviation. At this stage, baseline group homogeneity will also be evaluated.

The normality of the dependent variables (levels of social media use and internet addiction scores) will be tested using the Shapiro-Wilk test. If the data are normally distributed, parametric tests will be employed; if not, nonparametric alternatives will be used.

Independent samples t-tests will be conducted to compare pretest scores between the control and intervention groups to assess baseline equivalence. If the assumption of normality is violated, the Mann- Whitney U test will be applied. Within-group changes (pretest vs. posttest) will be analyzed using paired samples t-tests for normally distributed data or Wilcoxon signed-rank tests for non-normally distributed data.

To examine the interaction effect between time and group, a two-way repeated measures ANOVA will be conducted. This analysis will assess whether changes over time differ significantly between the intervention and control groups. If assumptions such as sphericity and homogeneity of variance are not met, nonparametric alternatives such as the Friedman test will be considered.

Effect sizes between groups will be calculated using Cohen’s d coefficient. This coefficient serves as an important metric in interpreting the magnitude of the intervention effect, where values of 0.2, 0.5, and

0.8 are considered small, medium, and large effects, respectively. Additional measures such as eta squared (η^2) may also be reported when appropriate.

If missing data are encountered, and the rate is below 5%, these cases may be excluded from the analysis. If the rate exceeds 5%, appropriate imputation methods such as multiple imputation or last observation carried forward (LOCF) will be employed. Both intention-to-treat and per-protocol analyses will be conducted and compared to ensure robustness.

The statistical significance level will be set at $p < .05$ for all analyses. To control for Type I error in the case of multiple comparisons, Bonferroni correction will be applied when necessary.

All analyses will be performed using IBM SPSS Statistics (version 26). Sample size estimation and power analysis were conducted using G*Power software. R statistical software may also be used, where needed, for data visualization or additional data processing steps.