

## **STATISTICAL ANALYSIS PLAN**

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NCT: Not yet assigned

### **Statistical Analysis Plan**

This statistical analysis plan outlines the methods used to evaluate the effect of a visual educational intervention on dental anxiety in children.

Sample size was determined using G\*Power software (version 3.1.9.6). Based on previous literature and an assumed large effect size, a minimum of 62 participants was required to achieve 95% power at a significance level of 0.05. To account for potential dropouts, a total of 70 participants were included.

All statistical analyses were performed using IBM SPSS Statistics (version 21.0). Normality of data distribution was assessed using the Shapiro–Wilk test.

For normally distributed continuous variables (age, pulse rate, MCDASf), independent samples t-test was used for between-group comparisons. For non-normally distributed variables (FIS scores), the Mann–Whitney U test was applied.

Subgroup analyses were conducted based on age groups (5–7, 8–10, and 11–14 years) using one-way ANOVA or Kruskal–Wallis tests as appropriate. Sex-based comparisons were analyzed using independent samples tests.

Categorical variables were analyzed using the chi-square test. Correlation analyses were performed using Spearman’s rho.

A p-value of < 0.05 was considered statistically significant. Effect sizes were calculated using Cohen’s d and interpreted as small (0.2), medium (0.5), or large (0.8).

Only participants with complete data were included in the final analysis (per-protocol approach). Missing data were not imputed.

### **References (APA Format)**

Arslan, I., & Aydinoglu, S. (2022). Turkish version of the faces version of the Modified Child Dental Anxiety Scale (MCDASf): Translation, reliability, and validity. *Clinical Oral Investigations*, 26(2), 2031–2042.

Buchanan, H., & Niven, N. (2002). Validation of a Facial Image Scale to assess child dental anxiety. *International Journal of Paediatric Dentistry*, 12(1), 47–52.

Kalra, N., et al. (2021). Relationship between subjective and objective measures of anticipatory anxiety in children. *Journal of Dental Anesthesia and Pain Medicine*, 21, 119–128.