

NCT05257837

**Follow-up Gun Study:
Can Safety Videos Mitigate Interest in Guns in Children?**

Statistical Analysis Plan

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Statistical Analysis Plan

Data Collection

Data will be collected in two ways. First, some data are entered directly into Qualtrics surveys by parents/guardians and participants in the home and in the lab. In the home, parental consent, child assent, and questionnaire data (i.e., gender, age, trait aggressiveness, age-inappropriate movie consumption, interest in guns, whether participants had taken a firearm safety course or watched a firearm safety video, and whether participants had a firearm at home) will be collected directly online via Qualtrics. In the laboratory, participants will also provide questionnaire data (i.e., attitudes towards guns, whether they have fired a gun before, safety video evaluation, movie evaluation) on iPads via Qualtrics. Second, participants' reporting and handling of the handguns (i.e., whether the child found the gun, told an adult about the gun, touched a gun, time spent handling a gun, total trigger pulls, trigger pulls while pointing the gun at the partner/self) will be recorded via video using a hidden camera. The videos will be coded by trained research assistants who are blind to experimental conditions and study hypotheses.

Data Cleaning

Data cleaning will be done in Excel, SAS, and R. Once the data have been cleaned, the variables will each be examined via summary statistics. Internal reliability of the survey batteries will be assessed via Cronbach's alpha and McDonald's omega. If necessary, variables will be transformed to conform to the assumptions of the statistical tests. Potential outliers will be identified. As in our previous research¹, an outlier is defined as a score at least five standard deviations above or below the mean.

Data Analysis Software

Negative binomial regression models (to determine the predictors of total trigger pulls, trigger pulls while pointing the gun at the partner/self, and time spent handling a gun) will be run using Stata statistical software version 17 (StataCorp). All other analyses were performed using SPSS version 28 and R statistical software version 4.2.1 (R Project for Statistical Computing).

Data Analyses

Preliminary bivariate and chi-squared tests will be run on the outcome variables. As in our prior studies^{1,2}, two sets of models will be run: (1) a reduced model that includes experimental conditions and gender, and (2) a full model that includes experimental conditions and covariates.

Incidence rate ratios (IRRs) with *SEs*, *z*-tests, and the corresponding 2-tailed *p*-values will be reported for both types of models. Nonsignificant variables (at the 2-tailed .05 significance level) will be excluded from models.

¹ <https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2734799>

² <https://jamanetwork.com/journals/jamapediatrics/fullarticle/2654597>