

Study Official Title: Innovative Family Prevention with Latino Siblings in Disadvantaged Settings

Unique Protocol ID: 1R01HD093649

NCT: Not Yet Assigned

Date submitted: 10/10/18

Statistical Analysis Plan

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Preliminary Analyses. We will screen for coding errors, inconsistent responses, and missing data and examine alpha reliabilities, means, and standard deviations for comparison with published reports. For the few measures that have not been tested in Latino samples, we will assess dimensionality and measurement equivalence for English and Spanish speakers, as in our prior work.

Attrition Analyses. Primary analyses will handle missing data using full information maximum likelihood estimation where missingness is assumed random conditional on observed covariates in the models. We will test for differential attrition at post-test and follow-up. Multivariate analysis of variance will compare completers and dropouts on demographic, individual, and family variables. If attrition is high or systematic background differences are found, more advanced missing data techniques will be used.

Assessing *SIBS* Program Effects on Primary and Secondary Outcomes. We will use multi-level modeling (MLM) to account for our clustered data (i.e., individuals over time, siblings and mothers and fathers in families; sibling dyads in groups, groups in schools), but to potentially simplify models, we will first test for dependencies at the group and school levels to determine whether these can be excluded from the models. This will include examining intraclass correlations for outcomes based on levels of clustering and use of MLM without predictors to assess levels of variance across the design. Then we will conduct MLM regressions in PROC MIXED to test program effects on post-test outcomes (primary and secondary), controlling for pre-test outcomes. Potential covariates will be parent education and nativity, sibling gender, and birth order.