Statistical Analysis Plan

Title of Project: A Message Framing Intervention for Increasing Parental Acceptance of Human Papillomavirus Vaccination
NCT #: NCT03856437
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We will conduct Analyses of Covariance (ANCOVAs) and multiple regressions to examine the group differences. The primary dependent variables will consist of parents' attitudes and intentions toward vaccinating their children against HPV (both are continuous variables). Secondary dependent variables will consist of message evaluation variables. In ANCOVAs, the key independent variable will be framing (gain, loss, no frame). Covariates will include key demographic variables such as age, gender, and baseline vaccine attitudes. We will also examine whether the effects of framing will vary as a function of other characteristics of the message (e.g., whether it contains an image and the valence of the image) by examining their interactions. In regression analyses, a block structure will be used where the first block will consist of the control variables (i.e., covariates) and the second block will contain the key predictor variable—framing. In regression analyses, we will also examine whether the effects of framing vary as a function of recipient characteristics such as their initial beliefs about the vaccine. The moderated multiple regression (MMR) technique will be used to construct the interaction terms, wherein each interaction term is formed after the component variables have been centered. This procedure is used to reduce multicollinearity, which could result in inflated standard errors for coefficient estimates. We will also report standard descriptive statistics and correlation matrices for all key variables.