Cover Page for ClinicalTrials.gov

Document:
Statistical Analysis Plan

Official Study Title:
Responses to E-cigarette Message Source and Presentation

Document Date:
January 17, 2024

Crowdsourcing Study

Study Design and Power Analysis: The focus of this proposal is to assess which communication principles influence self-reported responses on source trust, psychological reactance, message liking, attitudes, and behavioral intentions of young adults. Eligible participants will complete an online consent and tobacco use questions on a Qualtrics survey before random assignment to one of four experimental conditions in a 2 (Source: expert and peer) X 2 (Presentation: one-sided and two-sided) design. For the crowdsourcing study of Aim 1, we wish to identify top-rated features to be tested further using psychophysiological testing. We investigated the stability of ranks as a function of number of participants, using simulated data (500 sets of simulated data per run) based on observed outcome distributions from Stevens et al. (2021). These runs indicated that ranks for the top 3 features are stable with 50 participants each receiving 18 messages. Separately for vapers and susceptible non-vapers, within each of 8 possible conditions (2 expert types × 2 peer types × 2 presentation types) we will recruit n=50 participants, or n=400 for each vaping status and n=800 total. Scores for each measure will be summed and averaged across all messages within each vaping status condition. I will use a multi-attribute decision-making (MADM) framework to produce a dataset containing data on participant response to each message with source + presentation type. I will merge crowdsourced and psychophysiological data to rank messages and determine optimal content.