OP250 Analysis Report

Elena Savoia

Knowledge Outcomes

Impact of the intervention on Question 42 and 43 (for each question)

Q42 Please rate how much knowledge you believe you have about the following issues: For each statement, indicate how much knowledge you believe you have about it is by CIRCLING the appropriate answer.

Circle only one answer in each row

| | | | swer in each r | |
|--|--------------|------------|----------------|-----------|
| a. In-Groups vs. Out-Groups bias = | No | A little | Some | A lot of |
| OP250_in_out_bias_pre | knowledge | knowledge | knowledge | knowledge |
| | at all $= 1$ | = 2 | = 3 | = 4 |
| b. The meaning of hate = | No | A little | Some | A lot of |
| OP250_meaning_of_hate_pre | knowledge | knowledge | knowledge | knowledge |
| | at all $= 1$ | = 2 | = 3 | = 4 |
| c. How to recognize expressions of hate | No | A little | Some | A lot of |
| = OP250_recognize_hate_pre | knowledge | knowledge | knowledge | knowledge |
| | at all $= 1$ | = 2 | = 3 | = 4 |
| d. The difference between hate | No | A little | Some | A lot of |
| historically and hate today = | knowledge | knowledge | knowledge | knowledge |
| OP250_hate_hist_pre | at all $=$ 1 | = 2 | = 3 | = 4 |
| e. How hate can affect us = | No | A little | Some | A lot of |
| OP250_hate_affect_us_pre | knowledge | knowledge | knowledge | knowledge |
| | at all $= 1$ | = 2 | = 3 | = 4 |
| f. How hate becomes popular thinking = | No | A little | Some | A lot of |
| OP250_hate_popular_think_pre | knowledge | knowledge | knowledge | knowledge |
| _ | at all $= 1$ | = 2 | = 3 | = 4 |
| g. Proper ways of approaching hate = | No | A little | Some | A lot of |
| OP250_ways_approach_hate_pre | knowledge | knowledge | knowledge | knowledge |
| | at all = 1 | = 2 | = 3 | = 4 |

Q43 Please rate how much knowledge you believe you have about the following issues: For each statement, indicate how much knowledge you believe you have about it is by CIRCLING the appropriate answer.

Circle only one answer in each row

| | Circle Only One answer in each row | | | |
|--|------------------------------------|------------|-----------|-----------|
| a. What might be considered a "risky" | No | A little | Some | A lot of |
| decision online = | knowledg | knowledge | knowledge | knowledge |
| OP250_risky_decision_pre | e at all = | = 2 | = 3 | = 4 |
| | 1 | | | |
| b. Online places where you can be unsafe = | No | A little | Some | A lot of |
| OP250_online_unsafe_place_pre | knowledg | knowledge | knowledge | knowledge |
| | e at all = | = 2 | = 3 | = 4 |
| | 1 | | | |
| c. Online places where you can find unsafe | No | A little | Some | A lot of |
| people = | knowledg | knowledge | knowledge | knowledge |
| OP250_online_unsafe_person_pre | e at all = | = 2 | = 3 | = 4 |
| | 1 | | | |
| d. Ways an unsafe person can talk to you | No | A little | Some | A lot of |
| online = | knowledg | knowledge | knowledge | knowledge |
| OP250_ways_unsafe_person_talk_pre | e at all = | = 2 | = 3 | = 4 |
| | 1 | | | |
| e. Proper ways to react to someone or | No | A little | Some | A lot of |
| something unsafe online = | knowledg | knowledge | knowledge | knowledge |
| OP250_react_unsafe_online_pre | e at all = | = 2 | = 3 | = 4 |
| _ | 1 | | | |
| f. Why we may act differently online | No | A little | Some | A lot of |
| compared to offline = | knowledg | knowledge | knowledge | knowledge |
| OP250_act_differently_online_pre | e at all = | = 2 | = 3 | = 4 |
| | 1 | | | |

For the individual questions I fit ordinal regression models to the repeated measures post-intervention (post1, post2) with a random effect for student and fixed effects for intervention group, visit, baseline scale score, school year, gender, white, grades/score and study indicator (School B vs School F). The significance test for intervention group for each endpoint is given in the table below. Only for OP250_1 (a. In-Groups vs. Out-Groups bias) is there a significant intervention group effect. For this endpoint, the active intervention group had 9.6 times higher odds of being in a higher response (more knowledgeable) category than the controls.

| Mixed model for ordinal regression | | |
|------------------------------------|--------------------------|--|
| Dependent variable | Intervention grp p-value | |
| Question 12 | 0.5226 | |
| OP250_1 | <0.0001 | |
| OP250_2 | 0.8330 | |
| OP250_3 | 0.6890 | |
| OP250_4 | 0.3666 | |
| OP250_5 | 0.8238 | |
| OP250_6 | 0.8802 | |
| OP250_7 | 0.4927 | |
| OP250_8 | 0.4058 | |
| OP250_9 | 0.6152 | |
| OP250_10 | 0.6968 | |
| OP250_11 | 0.5606 | |
| OP250_12 | 0.7079 | |
| OP250_13 | 0.5232 | |

Risk Perception Outcomes

Impact of the intervention on Question 29 (for each question) – "risk perception" questions

How risky do you think it is for the PERSONAL SAFETY of someone your age to engage in the following online behaviors? For each statement, indicate how risky you think it is by CIRCLING the appropriate answer.

Circle only one answer in each row

| | Circle on | iy one a | nswer in ead | cn row | |
|---|------------|-------------|---------------|--------------|--------------|
| a. To chat online with a stranger | No Risk | Low Risk | I am not sure | Some Risk | High Risk |
| b. To follow a thread of sexual images/videos | No | Low | I am not | Some | High |
| b. 10 follow a tilicad of sexual images/videos | Risk | Risk | sure | Risk | Risk |
| c. To follow a thread of images/ videos of | No | Low | I am not | Some | High |
| violence | Risk | Risk | sure | Risk | Risk |
| d. To chat online with someone who expresses | No | Low | I am not | Some | High |
| feelings against people because of their race, ethnicity or beliefs | Risk | Risk | sure | Risk | Risk |
| e. To chat online with someone who is | No | Low | I am not | Some | High |
| involved in criminal activity | Risk | Risk | sure | Risk | Risk |
| f. To chat online with someone your age who | No | Low | I am not | Some | High |
| says they have a weapon | Risk | Risk | sure | Risk | Risk |
| g. To chat online with someone who sells | No | Low | I am not | Some | High |
| drugs or alcohol | Risk | Risk | sure | Risk | Risk |
| | 1 | 1 | 1 | 1 | |

For the individual questions I fit ordinal regression models to the repeated measures post-intervention (post1, post2) with a random effect for student and fixed effects for intervention group, visit, baseline scale score, school year, gender, white, grades/score and study indicator (School B vs School F). The significance test for intervention group for each endpoint is given in the table below. For none of the items was intervention group a significant predictor.

| Mixed model for ordinal regression | | |
|------------------------------------|---------------------|--|
| Dependent variable | Intervention grp p- | |
| | value | |
| Risk1 | 0.7878 | |
| Risk2 | 0.1765 | |
| Risk3 | 0.2256 | |
| Risk4 | 0.7892 | |
| Risk5 | 0.1077 | |
| Risk6 | 0.2189 | |
| Risk7 | 0.1805 | |

A factor analysis of the seven items found a single factor was retained whether using the pre, post1 or post2 data. Internal consistency for the seven items was also high at baseline (Cronbach alpha=0.8473), post 1 month (0.8618) and post 2 months (0.8917). The seven items were summed to create a risk scale

with a range from 7 to 35. Changes in the scale from baseline to post-intervention (post1 and post2) were modeled using a linear mixed model with student as the random effect and fixed effects for intervention group, visit, baseline scale score, school year, gender, white, grades/score and study indicator (School B vs School F). Both intervention groups exhibited a decline in the scale post-intervention with controls having a LSM change of -1.347 (SE=0.3838, p=0.0006) and the active intervention having a LSM change of -0.3116 (SE=0.3949, p=0.4316). The difference between treatment groups was marginally significant with LSM difference of -1.0354 (SE=0.5293, p=0.0528). The difference between genders was significant with LSM difference of -1.7268 (SE=0.5577, p=0.0024) with males tending to decline (LSM change = -1.6927, SE=0.4491, p=0.0003) while females did not change (LSM change = 0.0341, SE=0.3421, p=0.9207).