

Review of: "Randomized Experimental Test of a Reduced-Exposure Message for an E-cigarette: Comprehension and Related Misperceptions"

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In a questionnaire preceded or not with information of the benefits of electronic cigarettes it was found that 89% of the respondents had a good understanding of the benefits and risks of electronic cigarettes.

Page Numbers would have been really helpful, as in my print out I regularly lost the order of the manuscript when I compared figures and text, further complicated by the upside down print out on the other side of the double sided print out (I have never had that issue before).

It is, however, unclear what percentage did have a good understanding in the control group. In other words, was there an improved understanding? Without a comparator that is impossible to judge. I know the Methods explains the aim of the study was 'message comprehension' but then the design is a bit odd when you have those not having the message of exposure to reduced chemicals, and those not exposed. Your design therefore, appears unable to answer the question whether the general understanding has improved or not, and that seems more interesting and relevant to me than the understanding of the message per se.

I think approval from an IRB would be recommendable and in our institute would have been expected. Did you consult an IRB?

What does the dagger in table I mean?

There was a careful assessment of the qualification of the responses for which I applaud the authors.

Half had annual income below \$50,000, so, on a more positive note, half had an income above \$50,000.

In the Results, can you perhaps provide p-values for differences between groups (perhaps a Chi-square test will do). Add P-values also to table II. I think in Table II there are some other interesting things that are not mentioned: 'Former Users' and 'Never Users' were more than 'Dual Users' and 'Smokers' married. I think this is important to comment on. Also, Smokers and Dual Users were more than the others 'Living with a Partner', and with the 'Former Users' more divorced than the 'Never Users'. Apparently married people are less desiring cigarettes, suggesting that marriage, at least when it comes to tobacco use, is associated with a healthier life style?

It is not explained what AHL and LHL individuals are; spell out abbreviations at first use.

For figure 1 to be meaningful, I would like to see this response also in the control group; in other words how much does the response differ from the default knowledge? I know this comes back in Table III, and is not immediately testing comprehension, but the ultimate aim is to send the message that smoking is worse than vaping.

The two panels of figure 2 are virtually identical; I am not sure what the second panel adds to what is already described in the first panel. Add to the heading of Table 3 'Risk perception of electronic nicotine delivery devices'.

Table III seems to me to show that people who received the message in the video rated actually worse than the controls! For instance, in the 'Smokers' 92.8% of those that received the message rated the ENDS as 'At least somewhat harmful' while more than that, i.e., 96.3% of Controls (so those who did NOT receive the message considered the ENDS 'At least somewhat harmful'. The same applies to 'Former Users' and 'Never Users'. The same applies to the Risk Rating Task. So, as you rightly conclude 'Exposure to the message significantly increased misconception among Smokers, Former and Never Users.

The main observation seems to me that the Health literacy status is the main determinant of correct interpretation.

In the first sentence of the Discussion, I think it is premature to conclude that the study showed a good comprehension of the message. It seems to me that even before they looked they had a fair idea. What really needed to happen was a comparison with the answers of the control population. Perhaps many understood the message well, but what is the point of that message if it in fact leads to misconception! The increased misconception is in contrast to the conclusion drawn on the third page of the Discussion third paragraph, where it was concluded that 'there was no evidence that exposure to the message promoted misunderstanding...'. It did! See your table III, where the effect was against what was sought to be achieved!