Reviewer’s report

Title: YouTube™ as a source of information on food poisoning

Version: 0 Date: 27 Dec 2018

Reviewer: Adam G. Dunn

Reviewer's report:

Thank you for the opportunity to review this manuscript. The research examines the quality of information presented in YouTube videos related to food poisoning. The work is interesting and reasonably well written, though I was surprised at the choice of YouTube over other social media and information sharing websites. Other than minor issues with the search terms, the work is well presented and generally replicable.

Major Comments:

Abstract: The abstract includes some issues that reflect some minor issues with the approach. The claim is that YouTube is widely used for health information - a claim that is not backed up by evidence in the manuscript. The results then indicate that most of the videos are educational and useful, but this is likely to reflect the choice of search terms. The results also say that educational videos had higher scores, which is perhaps an unfortunately obvious result. My guess is that the search terms were not piloted and were just selected on a hunch, and this has limited the value of the research.

Background: The background was unconvincing. In the first paragraph there is an assumption made that patients "want" to know lots of information about foodborne illnesses without evidence, and that provision of that information would help. It's not clear that either of those things are necessarily true.

Background: While it is true that people are increasingly using the Internet to access health information, the statement "As a famous video site, it has a huge future in disseminating medical knowledge" is unfortunate because of the use of the word "huge" and also because this is unreferenced. While there are studies examining the quality of health information on YouTube for a variety of conditions and interventions that consumers/populations might be interested in (as referenced), there was no strong justification for why there needs to be research done on foodborne illnesses for YouTube, rather than any other condition and any other set of websites.
Methods: The search terms seem arbitrary and there may have been other synonyms that could have substantially affected the proportion of videos in each category.

Methods: How does YouTube rank results? Assuming the simplest approach where the most popular links appear first, then limiting the data collection to the first 5 pages might have distorted the outcome measures, and may explain why there was no clear difference found in the number of views and likes across the categories.

Methods: Other than those minor issues, the methods are generally well specified and complete, and the use of the GQS was justified and appropriate, and its limitation was described in the discussion.

Results: Even though the scores were averaged and disagreements resolved by a third investigator, it would be worth including full details of the level of agreement in the scores, including a statistical test describing how different their scores were before averaging.

Discussion: The lack of a correlation or pattern between the "usefulness" and the number of people who might have seen a video on YouTube is an interesting one and likely reflects a more general phenomenon - that low credibility information is equally likely to spread and be persistent in a population because of the volume of information they may be exposed to online, find through searching, or choose to view through links on social media. It is an important point and it is made reasonably well in the discussion.

Discussion: The videos themselves are unlikely to be the reason for the differences in the number of views or likes they receive. Much more likely it is the existing awareness of the channel and exposure to the links to the videos on other social media platforms that will have driven the traffic to the website. So I think it is not quite right to conclude that the videos need to be entertaining to drive views. There are likely many other factors affecting viewers.

Minor Comments:

Abstract: Videos are not "enrolled", they just "met the inclusion criteria". Patients in trials are enrolled and this is not a trial.

Background: "Infiltrates" is the wrong word to use in the background. Electronic multimedia does not have agency on its own and does not infiltrate - it might be common but it would be
simpler just to say that "People are increasingly using the Internet to access health information [references]"

Throughout: some of the spacing around parentheses is inconsistent.

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

Yes

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.

Yes

**Are the conclusions drawn adequately supported by the data shown?**
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Yes

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