Author’s response to reviews

Title: A qualitative study of the coverage of influenza vaccination on Dutch news sites and social media websites

Authors:

Birthe A Lehmann (birthe.lehmann@maastrichtuniversity.nl)
Robert AC Ruiter (r.ruiter@maastrichtuniversity.nl)
Gerjo Kok (g.kok@maastrichtuniversity.nl)

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Author’s response to reviews: see over
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Title: A qualitative study of the coverage of influenza vaccination on Dutch news sites and social media websites

Authors:

Birthe A. Lehmann (birthe.lehmann@maastrichtuniversity.nl)

Robert A.C. Ruiter (r.ruiter@maastrichtuniversity.nl)

Gerjo Kok (g.kok@maastrichtuniversity.nl)

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Author’s response to reviews: see over
Dear Editor,

Thank you for providing us with the opportunity to revise and resubmit our manuscript entitled “A qualitative study of the coverage of influenza vaccination on Dutch news sites and social media websites” (ID: 4251504468390154). We would like to thank you and the reviewers for the useful suggestions and hope that our manuscript now matches the quality standards and interests of your journal.

Below, you will find our response to your comments as well as a response to both reviewers’ comments.

We look forward to hearing from you soon.

Kind regards, also on behalf of my co-authors,

Birthe Lehmann
Reviewer’s report

Editor’s comments:

1. Copyediting:
After reading through your manuscript, we feel that the quality of written English needs to be improved before the manuscript can be considered further.
The new version of the paper has been proofread by a native English speaker within our department.

2. We strongly encourage you to include an Acknowledgments section between the Authors’ contributions section and Reference list. Please acknowledge anyone who contributed towards the study by making substantial contributions to conception, design, acquisition of data, or analysis and interpretation of data, or who was involved in drafting the manuscript or revising it critically for important intellectual content, but who does not meet the criteria for authorship. Please also include their source(s) of funding. Please also acknowledge anyone who contributed materials essential for the study. Authors should obtain permission to acknowledge from all those mentioned in the Acknowledgments. Please list the source(s) of funding for the study, for each author, and for the manuscript preparation in the acknowledgments section. Authors must describe the role of the funding body, if any, in study design; in the collection, analysis, and interpretation of data; in the writing of the manuscript; and in the decision to submit the manuscript for publication.

We added an Acknowledgments section by merging the Authors contribution and the competing interest sections. See p.31

Reviewer: Jennifer Pereira

Reviewer’s report:

Major compulsory revisions

1) Although it’s clear that the analysis likely took a lot of time and effort, not enough time has been spent on describing what the authors have done so that readers can learn from it and potentially recreate the methodology for other vaccines. This is especially true of the abstract where more information is needed regarding the searches, the time frames of the searches, etc.
Information on the methodology was added to the abstract. See p.2

2) The Introduction is much too long and needs significant editing. In the first paragraph of Page 5, the authors discuss the study which is the natural end to the Introduction, along with the last sentence of the Introduction on Page 6. The paragraphs regarding influenza, and the vaccine’s controversial nature in the Netherlands, can be shortened considerably.

We thank the reviewer for this suggestion. The Introduction was shortened and edited. We decided to cut out most of the description about influenza and its controversial nature in the Netherlands.

3) The Method section is incomplete as is. Need more methodological information on how data were analyzed – how any people coded? What was the process? Which languages?

We re-wrote the Methods-section and added the information the reviewer asked for. The data was analyzed and coded by the first author; we extended information about the process of coding and added that only the quotes were translated into English. See p. 6-8

4) Results - Table or flowchart to illustrate the search strategy is needed. How many articles identified, how many did not meet inclusion criteria, how many from social media and news media

We added a table that states how many articles were identified in total, how many were included vs. excluded from social media and news media and how many were identified per month. See Table 1

5) Table to complement text in Results may help – it’s a lot of information to digest. While the subheadings which denote recurring themes in the content are helpful. Some quantitative data are needed here. Would also be helpful to know more about the news sites – you’ve indicated they range from news print media to anti-vaccination group sites. Reporting actual numbers or ratios would be helpful and would give context to the results.

We added two tables: Table 1 reports the total numbers of included and excluded reports per month and source. Table 2 helps the reader to get an overview of the themes that occurred during the three months and per media source. Unfortunately, we cannot give quantitative data for the distinction between different news sites. We chose to use the categorization that is made by Clipit. If we would try to distinguish between
different sources within the group of news sites, this would in fact be very subjective. However, we included more information about the different news sites in the Method section (see p.7) and discussed this issue in the limitation section (see p.30).

6) Did anyone identify themselves as a healthcare worker? If so, would be nice to know how many.

In rare cases, authors of Internet content identified themselves as a health care worker. However, the number was so small that this cannot be taken into consideration for our conclusions.

7) No news overarching themes as the epidemic progressed?

There were no new, overarching themes as the epidemic progressed.

8) Paper needs proofreading by a native English speaker

The new version of the paper has been proofread by a native English speaker within our department.

Minor essential revisions

9) Abstract – last line of Methods, change “months” to “month”

We re-wrote parts of the Abstract. The last line of the Methods therefore no longer exists that way.

10) Fourth last line of page 3 ends with |

I could not find this. It might have been a leftover of using the track changes option in MS Word.

11) Page 5 – first word should be investigating, not investing

Has been revised (see p.5).

12) Data is plural, should be “data were” (top of Page 7)

Has been revised (see p.6).

13) Last paragraph before Results should say “were also included” instead of “was also included”

We think the reviewer meant “excluded”. Has been revised (see p.8).

14) Page 10, section 1.2 – differences between the flu and a common cold

Has been revised (see p.10).
Reviewer: Tanya Berry

Reviewer’s report:

Major Compulsory Revisions

1. The idea to examine media for the months before, during, and after a flu epidemic is a very good idea. However, in the “data collection” section the authors need to specify what prompted the time parameters in the first place. What was the original purpose – did they hope there would be an epidemic or were they “lucky” one occurred. It also seems possible that this is a secondary data analysis or that they continually collect these data. More information is needed, regardless.

The presence of an influenza epidemic was determined by the Netherlands Institute for Health Services Research (NIVEL). We retrospectively selected the three months we wanted to include in our data analysis. A search profile with the mentioned terms was already activated in June 2011. This information was added to the Methods-section (see p.6-7).

2. How many sites were examined in total? How many were classified as “news” and how many as “social media”? Was each site read in its entirety?

We added a table that states how many articles were identified in total, from social media and news media and how many were identified per month. (see Table 1)

In the Methods-section, we added that only the first site that appeared when clicking on the link was read in its entirety (see p.7), also to restrict ourselves to primary data-analysis.

3. More detail on how the coding occurred is needed – what were the qualifications of the person who did the primary coding? Was there a secondary coder? Any test of inter-rater reliability?

Data collection and analysis was performed by the first author, who has experience with qualitative studies. There was no secondary coder and therefore no inter-rater reliability
could be applied. We added this in the Methods-section (see p.6).

4. The results could be streamlined and reorganized. One suggestion is to put the quotes in a table and the results could be reorganized under different headings. Much of it is very interesting, but after a few pages, it gets confusing.

We decided not to put the quotes in a table. However, we added a table (Table 2) that can be used by the reader as an advanced organizer. It offers the possibility to see the overarching themes and associated reports at a glance.

More information about how many articles, blogs, tweets, etc… under each theme would be helpful and help the reader understand the relevance of the themes.

In Table 1, the reader can see how many reports were detected per month and per media source, and the number of included versus excluded reports.

5. Perhaps the biggest problem I had with the paper was with the definition of news sites and organizing the results by news sites compared to social media. The definition given on p. 7 is too general. I think the results are more nuanced than as presented. For example in reading through the results it seemed that the majority of the “uncertainty and mistrust” quotes came from the “fringe” sites rather than mainstream media (I don’t read Dutch so was unable to go to many of the sites and see for myself their nature). It seems that many of the tweets were from the mainstream media. Therefore, the overarching “news” and “social media” categories seem too broad. Major news media have twitter feeds and so many of the tweets analysed would not be different than the news media sites.

On the other hand, the special groups “news sites” are very different than a major news outlet. Similarly, tweets from members of the general public are no different than casual comments.

We chose to use the categorization that is made by Clipit. If we would try to distinguish between different sources within the group of news sites, this would in fact be very subjective. We discussed this issue in the limitation section (see p.30).

Finally, how were facebook posts selected – does clipit only capture facebook profiles that are open to the general public, so really it depends on which privacy settings were used?

Clipit can only capture facebook profiles that are open to the general public. We added this information in the Methods-section (see p.7)

In the face of these questions, I suggest the results be organized (this goes with comment 4) at a deeper level than that presented. Also, is readership on the sites available? For example if a major Dutch newspaper has thousands of hits on its articles, compared to a
special group’s site, or a twitter user with only a few followers, the implications are very different. Also, is there information on the demographics of the followers of the sites? Of course, this is not possible for all of them, but perhaps for some of the major newspaper sites. The reorganization of the results should be reflected in the discussion.

We thank the reviewer for the above suggestions on clarifying the presentation of the results. We believe that adding tables 1 and 2 contributed to the objective of making the research findings more easily readable by providing information about the data structure and illustrating this further with excerpts of the findings. Unfortunately, we were not able to obtain information on the number of followers and the characteristics of the readership. This information could have indeed been helpful in stratifying the findings further in terms of importance and target group relevance. We also added this in the limitation-section (see p.30).

6. Limitations of this work are not mentioned.

We added a limitation section in the discussion, referring to the lack of causality and relative importance in the findings, and the rather strict distinction between news media and social media websites (see p.30).

7. In the discussion, it is stated that “anti-vaccination messages were put online twice as much as pro-vaccination message” but that is not stated in the results. This relates to the point 5 made above. Such information is valuable and could provide a richer platform for discussion.

We agree that this information is valuable for putting the results into context. However, in our Results-section information is given per month and overarching theme. Conclusions, like the over-prominence of anti-vaccination messages on social media websites are discussed in the Discussion-section.

Minor Essential Revisions

- define e-health websites (p. 3)
  We defined e-health websites on p.4.

- top of p. 5 – I think the authors mean “investigating”, not “investing”
  Has been revised.

- p. 8 – please give an example of what is meant by content or posts that “only occurred once” do they mean the theme? The way it reads it sounds like posts on the same topic that were duplicates (e.g., through a retweet) were not used at all).
Yes, we meant the theme of the content at hand. The sentence on p.8 now reads:

“Additionally, themes on news sites and in social media posts that only occurred once or showed no consistency with more often reported themes were excluded [...]”

- were just the quotes translated for this manuscript? I assume the articles were all in Dutch.

Yes, the articles were all in Dutch. Only the quotes were translated for this manuscript. We added a sentence to the Methods-section (p.8): “Following analysis, quotes were selected on the basis of their representativeness for the findings and subsequently translated from Dutch into English.”

- the relevance of the story about the MD who was in court was lost to me. The results could be written a little differently so that the story could be made clearer, and thus the implications of this story to Dutch society (relative to getting a flu vaccine) could be discussed.

We decided to exclude the story about the MD from the paper.

Discretionary Revisions

- the research at the bottom of p. 5, by Betsch & Wicker outlines about 50% of the places where medical students access health information. It would be interesting to know what the other 50% are.

Based on comment 1) of the other reviewer, we decided to shorten the introduction and amongst others, this information was removed from the introduction.

- how do they know a flu epidemic occurred in March 2012 – is this information based just on their own analysis or through the report of a Dutch health agency?

The occurrence of the epidemic was indeed registered by a Dutch health agency. We hope to have made this clearer by adding this information in the Methods section (p.6).