

## PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form (<http://bmjopen.bmj.com/site/about/resources/checklist.pdf>) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below.

### ARTICLE DETAILS

<b>TITLE (PROVISIONAL)</b>	A CONTENT ANALYSIS OF THE REPRESENTATION OF STATINS IN THE BRITISH NEWSPRINT MEDIA
<b>AUTHORS</b>	Chisnell, Julia

### VERSION 1 - REVIEW

<b>REVIEWER</b>	Bijie Bie Department of Biostatistics School of Public Health University of Alabama at Birmingham, United States
<b>REVIEW RETURNED</b>	26-May-2016

<b>GENERAL COMMENTS</b>	<p>Thank you for the opportunity to read your work. In general - the strengths of this article include the the elaboration of research context, the research methods, and the discussions you drew from your data. I think some work needs to be done on the method, conclusion, and formatting issues.</p> <p>Below, I have provided what I've titled as Major and Minor comments as I read through your manuscript on multiple occasions. I tried my best to keep the comments in order as they surfaced in the read. Finally, I hope that you will take my comments in the manner in which I intend, that is, to refine your manuscript toward a stronger final product.</p> <p>Abstract (Page 3) (1) According to the BMJ Open "Instructions for authors" (<a href="http://bmjopen.bmj.com/site/about/guidelines.xhtml">http://bmjopen.bmj.com/site/about/guidelines.xhtml</a>), an abstract should be max. 300 words, while your current abstract is a bit long (313 words when I pasted it into my Microsoft Word). It would be better if you can cut your abstract shorter. (2) Could you rewritten the phrase "over six months 1 October 2013 - 31 March 2014" to make it look more professional?</p> <p>'Article summary' section (Page 4-5) (1) Your 'Article summary' section is also a bit long. According to the BMJ Open "Instructions for authors" (<a href="http://bmjopen.bmj.com/site/about/guidelines.xhtml">http://bmjopen.bmj.com/site/about/guidelines.xhtml</a>): "An 'Article summary' section consisting of the heading: 'Strengths and limitations of this study', and containing up to five short bullet points, no longer than one sentence each, that relate specifically to the methods of the study reported." Your first bullet point contains two sentences, second bullet point contains 2 sentences, third bullet point contains four sentences, and last bullet point contains two. You may want to cut this section based on the Journal's instructions. (2) Your third bullet point highlights the problem of no research team, but what do you mean by "Analysis by a second researcher of</p>
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	<p>a sub-sample of the sources showed a high level of consistency."? Does that mean you have two coders in this study? Can you provide inter-coder reliability statistics in any forms (percent agreement, Scott's pi, and Krippendorff's alpha, etc.)?</p> <p>Method (Page 9)  (1) My main concerns lie in the Method section. First, you elaborated the process of data collection pretty well, while I wish the author(s) should probably give more details of your codebook (coding scheme) for other researchers to replicate. For instance, what is the coding criteria for "article type"? What is the operable definition for "positive" and "negative" stories? Can you provide any examples of "positive" and "negative" stories?  (2) Please allow me to restate the importance of inter-coder reliability in content analysis research. If this study is 100% qualitative, it is acceptable to analyze the data on your own; however, if the content analysis has any quantitative component, it would be safer to have decent levels of inter-coder reliability statistic.</p> <p>Results (Page 10)  Table 2: could you also provide percentage statistic in Table to make it more informative?</p> <p>Discussion  (1) Page 20-21: I really enjoy reading your discussion of the "representation of the diagnosis and treatment of hypertension", could you please provide a citation for arguments in this paragraph?  (2) Page 22: Line 3, "It may be of value for ..." I would suggest you to be more confident of why your research holds important implications for health practitioners.</p>
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<b>REVIEWER</b>	Liesbeth Claassen EMGO+ Institute for Health and Care Research, VU University medical Center Amsterdam, the Netherlands
<b>REVIEW RETURNED</b>	02-Jun-2016

<b>GENERAL COMMENTS</b>	<p>Introduction:</p> <ul style="list-style-type: none"> <li>• The problem is not clearly defined; what is the debate in the clinical literature (pg6, line 14-15)? What is the practical relevance of studying media coverage?</li> <li>• What is the identified interaction (pg 6, line 25)? Refs (17-19) are all from Goldacre (and 18 and 19 are basically the same )</li> <li>• Ref 27 is a Danish study.</li> </ul> <p>Method:</p> <ul style="list-style-type: none"> <li>• Note 2 (pg8): which census data? (reference is missing)</li> <li>• Note 3 (pg8): how do right, left, centre right, centre left relate to party affiliation?</li> <li>• How were articles judged in terms of positive, negative and neutral arguments? (pg9, line14). This categorisation is not informative without a proper description of the content. An qualitative and quantitative evaluation in terms of key themes would provide more insight.</li> </ul>
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	<ul style="list-style-type: none"> <li>• The thematic analysis is rather limited (e.g. how are themes interrelated).</li> <li>• Who was the second researcher? And what is the n in the small set that was analysed? (pg 9, line 23-25). What was the level of consistency, how were differences resolved.</li> </ul> <p>Results:</p> <ul style="list-style-type: none"> <li>• There is considerable overlap between Table 1, Graph1, and Graph2. Moreover, it is not exactly clear why this information is all relevant.</li> <li>• Thematic analysis: <ul style="list-style-type: none"> <li>○ Dates are missing in the quotes</li> <li>○ Quote on pg13, line 56 does not support the argument (can be deleted).</li> <li>○ Although the validity of the evidence is indeed closely related I would categorized this as a separate theme.</li> <li>○ I do not understand the sentence on pg16, line 34-36; "<i>Where there is.....</i> "</li> </ul> </li> </ul> <p>Discussion:</p> <ul style="list-style-type: none"> <li>• Why does the author state that coverage is <b>substantially influenced</b> by publications (pg 19, line 7). Is this mainly based on the fact that the coverage peaked around two important publications?</li> <li>• Structure of 2<sup>nd</sup> paragraph 19, line 29 -pg20 line 31 is difficult to follow. What are these medical debates about? What is the commonality in content in medical and popular press?</li> <li>• There is a reference to Hernandez et al 2011 (Ref 30 ?) but is not exactly clear how this relates to the argument.</li> </ul>
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## VERSION 1 – AUTHOR RESPONSE

Reviewer 1:

Abstract (Page 3)

(1) According to the BMJ Open "Instructions for authors" (<http://bmjopen.bmj.com/site/about/guidelines.xhtml>), an abstract should be max. 300 words, while your current abstract is a bit long (313 words when I pasted it into my Microsoft Word). It would be better if you can cut your abstract shorter.

- The Scholar One system now checks out at 295 words.

(2) Could you rewritten the phrase "over six months 1 October 2013 - 31 March 2014" to make it look more professional?

- Changed to: over a six month time period 1 October 2013 - 31 March 2014.

'Article summary' section (Page 4-5)

(1) Your 'Article summary' section is also a bit long. According to the BMJ Open "Instructions for authors" (<http://bmjopen.bmj.com/site/about/guidelines.xhtml>): "An 'Article summary' section consisting of the heading: 'Strengths and limitations of this study', and containing up to five short bullet points, no longer than one sentence each, that relate specifically to the methods of the study reported." Your first bullet point contains two sentences, second bullet point contains 2 sentences, third bullet point contains four sentences, and last bullet point contains two. You may want to cut this section based on the Journal's instructions.

- Bullet points cut down.

(2) Your third bullet point highlights the problem of no research team, but what do you mean by "Analysis by a second researcher of a sub-sample of the sources showed a high level of consistency."? Does that mean you have two coders in this study? Can you provide inter-coder reliability statistics in any forms (percent agreement, Scott's pi, and Krippendorff's alpha, etc.)? Method (Page 9)

- Removed reference to second researcher as insufficient number of articles co-reviewed to assess inter-coder reliability.

(1) My main concerns lie in the Method section. First, you elaborated the process of data collection pretty well, while I wish the author(s) should probably give more details of your codebook (coding scheme) for other researchers to replicate. For instance, what is the coding criteria for "article type"? What is the operable definition for "positive" and "negative" stories? Can you provide any examples of "positive" and "negative" stories?

- Included a copy of the coding scheme as a supplementary document. This includes examples of positive/negative language and article categorisation etc.

(2) Please allow me to restate the importance of inter-coder reliability in content analysis research. If this study is 100% qualitative, it is acceptable to analyze the data on your own; however, if the content analysis has any quantitative component, it would be safer to have decent levels of inter-coder reliability statistic.

- Insufficient number of articles co-reviewed to allow inter-coder reliability calculations therefore references to second coder removed.

## Results (Page 10)

Table 2: could you also provide percentage statistic in Table to make it more informative?

- Percentages added to table.

## Discussion

(1) Page 20-21: I really enjoy reading your discussion of the "representation of the diagnosis and treatment of hypertension", could you please provide a citation for arguments in this paragraph?

- Ref added.

(2) Page 22: Line 3, "It may be of value for ..." I would suggest you to be more confident of why your research holds important implications for health practitioners.

- Rephrased para to strengthen message.

Reviewer: 2

Introduction:

- The problem is not clearly defined; what is the debate in the clinical literature (p6 line 14-15)?
- Examples of areas of debate added.
- What is the practical relevance of studying media coverage?
- Added a comment: in the light of the relationship between media portrayal, behaviours, and potentially outcomes, it is relevant to examine the portrayal of medications in the lay media.
- What is the identified interaction (p6, line 25)? Refs (17-19) are all from Goldacre (and 18 and 19 are basically the same).
- Added a comment + 2 additional refs: same commentators and topics are reported, or speak directly, in both.
- Ref 27 is a Danish study.
- Thank you, amended.

Method:

- Note 2 (p8): which census data? (ref is missing) Added 2011 census.
- Changed sources from legend to refs.
- Note 3 (p8): how do right, left, centre right, centre left relate to party affiliation?
- Added party affiliation to footnote 3.
- How were articles judged in terms of positive, negative and neutral arguments? (p9, line 14). This categorisation is not informative without a proper description of the content. An qualitative and quantitative evaluation in terms of key themes would provide more insight.
- A copy of the coding scheme is now being made available. This includes some examples of positive/negative themes and language which guided the categorisation.
- The thematic analysis is rather limited (eg how are themes interrelated).
- Description of qualitative analysis reworded.
- Who was the second researcher? And what is the n in the small set that was analysed? (p9, line 23-25). What was the level of consistency, how were differences resolved?
- Removed reference to second researcher as insufficient number of articles co-reviewed to calculate inter-coder reliability.

Results:

- There is considerable overlap between Table 1, Graph 1, and Graph 2. Moreover, it is not exactly clear why this information is all relevant. Data on positive/negative coverage removed from Table 2 and charts re-ordered in the text.
- Charts now show: Graph 1 – timeline of coverage; Table 2 - frequency of article type by outlet;

Graph 2 – proportion of positive/negative coverage by outlet. Percentages added to Table 2 as per Reviewer 1 recommendation.

- Thematic analysis:
  - o Dates are missing in the quotes.
  - Dates added.
  - o Quote on p13, line 56 does not support the argument (can be deleted).
  - I can't find page 13 line 56 to address this one?
  - o Although the validity of the evidence is indeed closely related I would categorized this as a separate theme.
  - Could not locate this one - which sentences does it refer to? Thank you.
  - o I do not understand the sentence on p16, line 34-26; 'Where there is....'.
  - Reworded sentence.

Discussion:

- Why does the author state that coverage is 'substantially influenced' by publications (p19, line 7). Is this mainly based on the fact that the coverage peaked around two important publications?
  - Sentence amended to say 'substantially influenced by coverage in the medical journals of studies, reports and comment'. (Over 50% of articles cite a study or commentary published in a medical journal.)
- Structure of 2nd paragraph p19, line 29 - p20 line 31 is difficult to follow. What are these medical debates about? What is the commonality in content in medical and popular press?
  - Section partially reworded, and bulleted, to clarify.
- There is a reference to Hernandez et al 2011 (ref 30?) but is not exactly clear how this relates to the argument.
  - Commentary re-ordered to link better with ref.

#### VERSION 2 – REVIEW

<b>REVIEWER</b>	Bijie Bie University of Alabama, United States
<b>REVIEW RETURNED</b>	24-Aug-2016

<b>GENERAL COMMENTS</b>	Thank you for the opportunity to read your revised work. I appreciate the fact that you have provided a detailed coding scheme in supplements this time and your justification for the lack of inter-coder reliability, along with other minor issues.
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<b>REVIEWER</b>	Liesbeth Claassen Vu medical center, Amsterdam, The Netherlands.
<b>REVIEW RETURNED</b>	07-Oct-2016

<b>GENERAL COMMENTS</b>	<p>The author has addressed most of my comments. However, there is one major issue that should be discussed, at least as a serious limitation of the study. This concerns the validity of the analyses, as there was no interrater-reliability check of the coding scheme. In addition, there are some minor issues.</p> <ul style="list-style-type: none"> <li>- Note2 p8 census data; add UK.</li> <li>- Readability of Graph 2 could be improved by explaining which papers make up the columns (broadsheet/tabloids/right and left leaning), e.g. by using stacked columns or adding a footnote.</li> <li>- The quote “doctors should first work with patients to put them less at risk... [by] stopping smoking, drinking less, taking exercise and eating healthily.”[Mail 13/3/14], may imply that the medical profession focuses on medical options but does not explicitly support this argument so therefore I think it should be deleted or described differently.</li> <li>- Trust in organisations and trust in the validity of the evidence are closely related but in my opinion to separate dimensions of trust and should be addressed as such.</li> </ul>
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### VERSION 2 – AUTHOR RESPONSE

18/1/17 - all except latest files deleted.

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13/12/16 - please find attached figures 1 and 2. Thanks.

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24/11/16 - In response to your request for a copy of the manuscript without the figures - I have now uploaded this. The figures themselves (fig 1 and fig 2) were previously uploaded and have not changed. I tried to upload them again but the system said they were already there. Thankyou.

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Thank you for your further comments. In response to the points raised by reviewer 2 I have:

- Reworded and added to the study limitations;
- Added 'UK' to note 2 page 8, thank you;
- Added a footnote to figure 2 explaining which papers were categorised as broadsheet/tabloid and left/right leaning - I hope this is what was meant here;
- Removed the reference 'doctors should first work with...';
- Reworded the first para and a later para in the Results section relating to 'Trust' to try and distinguish more clearly between the reliability of evidence and institutions, although I am not sure if this will completely answer the point raised. I was highlighting that mistrust of an institution affects the reliability placed on the evidence they produce or sponsor, so there is inevitably a bit of an overlap here.