Author's response to reviews

Title: What the newspapers say about medication adherence: a content analysis

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Author's response to reviews: see over
Dear Reviewers and Editorial Team,

Re: Article submission- (4492510549648065) What the newspapers say about medication adherence: a content analysis

Please find our responses to the reviewer’s comments outlined below.

If you have any queries please do not hesitate to contact myself on 02890975221 or email: j.mcelnay@qub.ac.uk.

I look forward to hearing from you in due course.

Yours faithfully,
James C. McElnay
Professor of Pharmacy Practice
Pro-Vice Chancellor for Research and Post-graduates

Reviewer's report
Reviewer: Ian Watt

Major:
It is mentioned that judgements were made during data extraction on “article slant” and “quality of information”, however no details are given of how judgements of quality were made or what constituted a positive or negative slant.
More information on quality and article slant has been added to the methods section to clarify these issues.

Apart from the above major concern, I have a number of minor points to make which the editors/authors may wish to consider.
* I think the authors overstate the case in the introduction for the importance of medication adherence when they state it is the “single most important health intervention likely to improve the health of the population”.
The authors believe that adherence is a widely recognised, significant problem facing the healthcare system. This particular statement is referenced and the authors believe it to be appropriate.

* We are told the content analysis looked at articles published between 2004 and 2011 - is there any justification for these dates? This period was chosen to cover the most recent 8 year period of newspaper articles.

* In the results it is stated that the proportion of each article that dealt specifically with the topic of adherence was low and this statement we are told is based on a word count but I am unclear as to how the word count was calculated. The proportion of the article associated with adherence information was calculated as a percentage of the total article word count. This has been clarified.

* In the discussion it is stated that the study demonstrates that the medical literature is not strongly influencing newspaper reporting on adherence. This may or may not be true but I don't believe the study provides conclusive evidence either way, for example, given the competing demands for coverage in the general news media it could be argued that the current level of coverage is actually quite good and that the medical literature influential. This comment has been toned down to state that scientific articles on adherence are not well covered in the newspaper media. This is based on the fact that only 14% of the newspaper articles referred to a scientific article and the wide discrepancy between number of studies reported in the scientific literature versus those reported in the broad range of newspapers surveyed.

* In the limitations section further detail is given on articles from the LA Times and Wall Street Journal. I feel this would be better placed at the outset in the methods section. The limitations regarding the LA Times and Wall Street Journal have been moved to the methods section.

* It would be helpful to have some discussion in the study limitations of the sensitivity of the search terms used. A discussion regarding the sensitivity of the search terms used has been added to the methods section.

**Reviewer’s report**

**Reviewer:** Tania Bubela

**Reviewer’s report:**

**Major Compulsory Revisions**

**Introduction**

1. I would restructure the introduction so that the key aim of the paper is upfront and clear. The paper is not about how the public gain health information from newspapers, but about how adherence to medications is portrayed in an important source of health information for the public. I would therefore move the third paragraph to the start of the introduction, expand on the importance of medication adherence and then add the newspaper discussion after. The introduction has been restructured in line with the above comment.

2. The statement on internet use for personal health information currently reads as a tack on without being connected to the newspaper discussion. It really is a justification statement for a study limitation and should be framed as such—e.g., while internet searches provide… studies show that newspapers continue to be… or something along those lines. The statement about Internet use has been integrated into the introduction more coherently as suggested.

**Methods**

3. Under “Data extraction” define the term ‘article slant’. Is this a “Frame” or similar—“slant” is not a technical term used in media studies. The term slant has been defined in the methods section.
4. Methods are generally now written in the active rather than passive voice for clarity and style. Please remove all passive voice, which will both shorten and clarify the methods section (e.g., NG selected the relevant articles... as opposed to “relevant articles were selected by NG”...).
The methods have been edited to read in the active voice.

5. Clarify the criteria were used in assigning quality of information on adherence. The lack of clarity on this point may also simply be a stylistic one. It is not clear whether the sentences that follow are in fact the criteria.
Information regarding the quality criteria has been elaborated upon.

6. Please expand on how you collected PubMed articles displayed in figure 2 in the methods section.
A sentence has been added to further explain the PubMed search terms used in Figure 2.

Results
7. I find it confusing that the authors switch between collective percentages (UK and US) and country-specific percentages. If no significant difference exists, cite only the collective statistic, do not compare the 2 countries. Make it clear in the methods that Chi-square was used (assuming an adjusted p-value for repeated tests).
The reporting of results has been streamlined as suggested above.

8. There are many percentages embedded into the text making it difficult to read the results section. I suggest that the authors incorporate tables with the country-specific percentages and collective percentages for the various constructs and refer to the tables in the text.
A number of the percentages have been removed to enhance clarity (see comment 7 above). Having done this, it was felt that the article now read well and that incorporation of tables was not necessary.

Discussion
9. The discussion would benefit from an introductory paragraph and a statement that provides a roadmap for the content to follow. The initial statement is one short, orphaned sentence on novelty, which detracts from the quality of the discussion.
The start of the introduction has been edited to provide more of a roadmap for the discussion section.

10. The next sentence is repetitive of the results. Do not repeat results in the discussion but summarise key findings and then contextualize them in the literature.
This has been corrected.

11. In the Results section you mention that articles used the terms compliance, concordance and adherence interchangeably and that this is not appropriate. You begin to address this in the Discussion section, but more detail would be necessary to contextualize your argument.
The terminology argument in the discussion section has been elaborated upon.

12. Add internet and other media sources, which may be more important to the public but were not analysed, as a key limitation of the study. This includes advice and brochures from family physicians, etc.
This has been added to the Limitation section in the article.

13. The conclusion that society as a whole is poorly informed cannot be made from these results. That is a different study on what people know about medication adherence from multiple sources. Your only conclusion is that NEWSPAPERS do not cover the issue well.
This finding has been clarified by rewording the sentence in the Conclusion section.

14. You recommend that investigators should provide accurate press releases to mediate to quality of media reporting on their publications. What are the limitations of this recommendation, in terms of how journalists actually write stories? Are there any other practical recommendations you might suggest?
We recommend that such press releases should use lay language which could be directly incorporated into newspaper articles, without the need for too much editorial interpretation.

Minor Essential Revisions
15. Dates for search strategy repeated (once in the “Study design” section, then again in the “Search strategy and eligibility” section).
   The dates have been removed from the ‘Search strategy and eligibility’ section.

16. You note that your kappa range is 0.54-0.96. Please provide a reference that suggests that a kappa score of that range is indicative of acceptable inter-coder reliability.
   Appropriate references have been added to indicate the appropriateness of the kappa range.

17. On page 7 bottom paragraph there is a missing period.
   This has been corrected.

18. Please pay attention to citation formatting. For example: errors in #5 and #40.
   The references have been corrected.

**Additional editorial requirements:**
Please format the abstract according to the guidelines for authors.
- remove the Data source heading.
  The data source heading has been removed from the abstract.
- add the context info of your study in the Background section of the Abstract.
  Context has been added to the background section of the abstract.