# PEER REVIEW HISTORY

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## **ARTICLE DETAILS**

TITLE (PROVISIONAL)	Physiotherapists' views on the Australian Physiotherapy
	Association's Choosing Wisely recommendations: a content
	analysis
AUTHORS	Zadro, Joshua; Peek, Aimie L.; Dodd, Rachael; McCaffery,
	Kirsten; Maher, Christopher

# **VERSION 1 – REVIEW**

REVIEWER	Simon Décary University Laval, Canada
REVIEW RETURNED	15-May-2019

GENERAL COMMENTS	This article reports on feedback from physiotherapists regarding the development of Choosing Wisely recommendations to reduce low-value care. As a physiotherapist, I greatly value these interesting results. Indeed, very few societies published members' feedback for CW development process. These results will likely stir a debate in the physiotherapy profession. As much as I like to see physiotherapy research being published in medical journals, I wonder if BMJ Open is the appropriate journal for this very specific issue. However, these results really set the tone for what appears to be the future research program of the lead author.
	I have some questions concerning methods (e.g. coding framework) and choices that were taken for data presentation (e.g. primary vs. secondary outcomes). I believe the manuscript is of great value but requires some refinements prior to publication.
	Abstract Line 26. Please see comment below concerning the choice for primary vs. secondary outcomes. Line 29. "Across the six sections." Please add somewhere in the abstract what you mean by six sections. See comments below for using this term in the manuscript. Line 30. Please see comments below concerning the coding grid. Line 47. In my opinion, the "level of agreement" for coding is not a strength or a main result. It is a prerequisite for confidence in the content analysis results. The strength is that you used two independent evaluators and a coding framework (more on this topic below). Lines 49 and 326. Please remove the term robust. This is great data, but this article only includes one source of qualitative data. "Robust" qualitative data would include many sources such as focus groups with multiple stakeholders etc.
	Methods

Line 102. The CW recommendations are a centre piece of this article and the discussion. I would not put this only as a supplementary table.

Line 104. Idem with the survey questions. This should be formatted as a table within the text to improve understanding of the results.

Line 115. Please use the same terminology from the table 2 (agreed/disagreed...)

Line 119. I would really have liked a more precise description of the coding framework in this section. What were the codes, how and why did the authors use these codes? Was there a conceptual framework that guided the process of finding codes? I would like a table explaining the coding terms (e.g. I am not familiar with the expression "blanket rule"). The different codes are available in supplemental table 3, but this needs to be presented in more details in the methods section. Of note, I am not an expert in qualitative research, but I see papers with more details about the development of their coding grids.

Line 131. There is an extensive paragraph on agreement between the reviewers for the coding. I do not think all this information is necessary. This is not an article that aimed to achieve reviewer agreement for the coding. This emphasis on stats agreement was confusing with the agreement data from the survey participants.

#### Results

Line 148. I would put table 1 as a supplementary table. The agreement between reviewers for the coding is not a main result of this paper. It is a prerequisite to demonstrate that the coding scheme was appropriate.

Line 150+. I found the results section hard to follow, even after two readings. It describes what is found in supplementary table 3. However, because the coding terms are not explained before, I was confused about what the results really meant. The verbatim helps but are not sufficient. In my opinion, the results in Table 2 (% agreement/disagreement per recommendations) should be presented first. I think it would be much clearer to describe for each recommendation the % agreement/disagreement and then dive into the details provided by the content analysis. I understand that this would require to invert what is considered the primary and secondary outcomes of the paper.

#### Discussion

Lines 315–316. This statement is really troublesome. Basically, this article analyzed all feedback from 2015 prior to the publication of the final recommendations. Since there is almost no change in the recommendations despite very detailed feedback, we are left wondering if feedback was really used by the association even if they said they would. I think the author needs to provide some details on this issue.

Line 323. In addition to the low response rate, a limitation is that there is no data to profile participants. This limits external validity. Line 363. Please, remove diagnostic statistics, it is not comprehensible without prior explanation about the use of red flags for screening purposes.

Line 378. I think there is a need to expand more on the standardized development process of Choosing Wisely recommendations. This will answer the "why" clinicians were surveyed in the first place.

## REVIEWER

	University of East London UK
REVIEW RETURNED	16-May-2019
GENERAL COMMENTS	Section 1, 2nd paragraph grw should be grow.  Section 2, 2.1 study design - this short paragraph needs rewording to inform the reader of the study design (cross sectional online survey which utilised content analysis) not just content analysis.  All references need to be reviewed, in particular in section 4.3 reference 18 is incorrect, n the second paragraph of this section ref 21 in misleading as the quoted research did not look at physiotherapists nor did ref 23.  References 24 and 25 have not been included in the reference list.
DEVIEWED	Tv
REVIEWER	Veena Manja University of California Davis United States of America
REVIEW RETURNED	02-Jul-2019
GENERAL COMMENTS	This is an important area of research, the authors ask important questions. A major drawback of the study is the low response rate. The analysis of comments provides insights into clinician behavior and reasons for making evidence-based guideline

#### **VERSION 1 – AUTHOR RESPONSE**

recommendations discordant decisions.

#### **REVIEWER #1**

## COMMENTS TO THE AUTHORS

This article reports on feedback from physiotherapists regarding the development of Choosing Wisely recommendations to reduce low-value care. As a physiotherapist, I greatly value these interesting results. Indeed, very few societies published members' feedback for CW development process. These results will likely stir a debate in the physiotherapy profession. As much as I like to see physiotherapy research being published in medical journals, I wonder if BMJ Open is the appropriate journal for this very specific issue. However, these results really set the tone for what appears to be the future research program of the lead author.

I have some questions concerning methods (e.g. coding framework) and choices that were taken for data presentation (e.g. primary vs. secondary outcomes). I believe the manuscript is of great value but requires some refinements prior to publication.

## **AUTHORS' RESPONSE**

We thank the reviewer for their positive comments. We chose to publish these findings in a medical journal to maximise exposure of our findings across health professions.

## **COMMENTS TO THE AUTHORS**

Abstract

Line 26. Please see comment below concerning the choice for primary vs. secondary outcomes.

## AUTHORS' RESPONSE

We have decided to keep our primary and secondary outcomes as they are (see response to later comment).

## **COMMENTS TO THE AUTHORS**

Line 29. "Across the six sections." Please add somewhere in the abstract what you mean by six sections. See comments below for using this term in the manuscript.

## **AUTHORS' RESPONSE**

We have provided more detail on what we mean by 'six sections'.

## (Abstract)

Participants were asked about the acceptability of the wording of recommendations using a closed (Yes/No) and free text response option (Section 1). Then using a similar response format, participants were asked whether they agreed with each Choosing Wisely recommendation (Sections 2 to 6).

### **COMMENTS TO THE AUTHORS**

Line 30. Please see comments below concerning the coding grid.

## **AUTHORS' RESPONSE**

Noted. See below response.

#### COMMENTS TO THE AUTHORS

Line 47. In my opinion, the "level of agreement" for coding is not a strength or a main result. It is a prerequisite for confidence in the content analysis results. The strength is that you used two independent evaluators and a coding framework (more on this topic below).

## **AUTHORS' RESPONSE**

We agree that a more appropriate strength of this study is that we used two independent evaluators and a coding framework. We have revised the manuscript accordingly.

(Strengths and limitations of this study)

- This is the first study to explore physiotherapists views on Choosing Wisely recommendations
- Two researchers developed a reliable coding framework to code written feedback from physiotherapists regarding Choosing Wisely recommendations

# (Page 17, 1st paragraph)

A strength of this study is that two researchers developed a reliable coding framework to code written feedback from physiotherapists regarding Choosing Wisely recommendations.

However, we disagree that 'level of agreement' should not appear in the results section. We feel this information is important for the reader as it gives them confidence in the findings of our content analysis.

## COMMENTS TO THE AUTHORS

Lines 49 and 326. Please remove the term robust. This is great data, but this article only includes one source of qualitative data. "Robust" qualitative data would include many sources such as focus groups with multiple stakeholders etc.

## **AUTHORS' RESPONSE**

The term robust has been removed as suggested.

#### COMMENTS TO THE AUTHORS

#### Methods

Line 102. The CW recommendations are a centre piece of this article and the discussion. I would not put this only as a supplementary table.

#### **AUTHORS' RESPONSE**

Supplementary Table 1 has now been formatted as a table within the text as suggested.

## (Page 7, 1st paragraph)

The draft Choosing Wisely recommendations were largely similar to the current recommendations (Table 1).

## **COMMENTS TO THE AUTHORS**

Line 104. Idem with the survey questions. This should be formatted as a table within the text to improve understanding of the results.

## **AUTHORS' RESPONSE**

Supplementary Table 2 has now been formatted as a table within the text as suggested. The format of the table has changed but the content is the same.

## (Page 7, 2nd paragraph)

The survey included six sections; each section included a recommendation that was linked to a question (Table 2).

#### COMMENTS TO THE AUTHORS

Line 115. Please use the same terminology from the table 2 (agreed/disagreed...)

#### AUTHORS' RESPONSE

This has been corrected.

# (Page 7, 2nd paragraph)

Participants were then asked if they agreed/disagreed with the recommendation (or neither agreed/disagreed) and were prompted to provide feedback in a free-text field.

#### COMMENTS TO THE AUTHORS

Line 119. I would really have liked a more precise description of the coding framework in this section. What were the codes, how and why did the authors use these codes? Was there a conceptual framework that guided the process of finding codes? I would like a table explaining the coding terms (e.g. I am not familiar with the expression "blanket rule"). The different codes are available in supplemental table 3, but this needs to be presented in more details in the methods section. Of note, I am not an expert in qualitative research, but I see papers with more details about the development of their coding grids.

## **AUTHORS' RESPONSE**

We have now included a detailed description of the coding framework as supplementary material in the methods.

# (Page 8, 1st paragraph)

A detailed outline of the coding framework is in Supplementary Table 1.

The process for developing the framework (including the conceptual framework used to guide the process of finding codes) has now been outlined in the manuscript.

## (Page 7, 3rd paragraph)

Two researchers (JZ and AP) read through all the responses to familiarise themselves with their content, taking notes and developing codes to represent the key characteristics of responses. The same researchers discussed and refined these codes (which was done separately for each question), and re-read through all the responses to ensure the codes captured all the important information expressed by participants. The researchers (JZ and AP) developed a coding framework using an inductive approach, as the aim was to generate new ideas from the data. This coding framework was then applied to a random sample of responses for each question (at least 20%) to test the reliability of the framework (see below). Each response was allocated up to five codes based on its content.

## COMMENTS TO THE AUTHORS

Line 131. There is an extensive paragraph on agreement between the reviewers for the coding. I do not think all this information is necessary. This is not an article that aimed to achieve reviewer agreement for the coding. This emphasis on stats agreement was confusing with the agreement data from the survey participants.

#### **AUTHORS' RESPONSE**

We disagree. We feel this information is important for the reader as it gives them confidence in the findings of our content analysis.

#### COMMENTS TO THE AUTHORS

#### Results

Line 148. I would put table 1 as a supplementary table. The agreement between reviewers for the coding is not a main result of this paper. It is a prerequisite to demonstrate that the coding scheme was appropriate.

## **AUTHORS' RESPONSE**

Table 1 has been included as supplementary material.

# (Page 9, 1st paragraph)

Level of agreement between the coding researchers was 'almost perfect' for sections one to five (range: k=0.86 to 0.94) and 'substantial' for section six (k=0.75, 95% CI: 0.54 to 0.94) (Supplementary Table 2).

## COMMENTS TO THE AUTHORS

Line 150+. I found the results section hard to follow, even after two readings. It describes what is found in supplementary table 3. However, because the coding terms are not explained before, I was confused about what the results really meant. The verbatim helps but are not sufficient.

## AUTHORS' RESPONSE

We have now included a detailed description of the coding framework as supplementary material in the methods.

## (Page 8, 1st paragraph)

A detailed outline of the coding framework is in Supplementary Table 1.

## COMMENTS TO THE AUTHORS

In my opinion, the results in Table 2 (% agreement/disagreement per recommendations) should be presented first. I think it would be much clearer to describe for each recommendation the % agreement/disagreement and then dive into the details provided by the content analysis. I understand that this would require to invert what is considered the primary and secondary outcomes of the paper.

## **AUTHORS' RESPONSE**

We have re-arranged the results section so data on % agreement/disagreement per recommendation appears before the content analysis. However, we do not believe it is necessary to change our primary and secondary outcomes because of this.

#### COMMENTS TO THE AUTHORS

#### Discussion

Lines 315–316. This statement is really troublesome. Basically, this article analyzed all feedback from 2015 prior to the publication of the final recommendations. Since there is almost no change in the recommendations despite very detailed feedback, we are left wondering if feedback was really used by the association even if they said they would. I think the author needs to provide some details on this issue.

#### **AUTHORS' RESPONSE**

We have added further discussion on this issue.

## (Page 19, 2nd paragraph)

The high proportion of physiotherapists that agreed with the draft Choosing Wisely recommendations might explain why only minor changes were made to the final list published by the Australian Physiotherapy Association. Further, our content analysis highlighted key areas of disagreement with the recommendations that might have been difficult to incorporate into a brief 'do not do' message (e.g. recommendations do not consider clinical reasoning or clinical experience, and make treatment 'recipe-based'). Nevertheless, the Australian Physiotherapy Association has not ignored this feedback and introduced the Choosing Wisely recommendations with the following statement: "The recommendations are not prescriptive - instead, they should help to start a conversation about what is appropriate and necessary in individual patient consultation".

## COMMENTS TO THE AUTHORS

Line 323. In addition to the low response rate, a limitation is that there is no data to profile participants. This limits external validity.

# **AUTHORS' RESPONSE**

Thank you for pointing this out. We have added this as a limitation.

## (Page 17, 1st paragraph)

The main weakness is the low response rate to the survey (5.6%). Our sample might therefore not be representative of all members of the Australian Physiotherapy Association; this reduces our confidence in the quantitative results of our study. Further, as we have no demographic data for the participants, this might limit external validity. Nevertheless, our qualitative data highlights possible targets to increase adoption of Choosing Wisely recommendations among physiotherapists.

## COMMENTS TO THE AUTHORS

Line 363. Please, remove diagnostic statistics, it is not comprehensible without prior explanation about the use of red flags for screening purposes.

#### **AUTHORS' RESPONSE**

We have removed the diagnostic statistics as suggested.

#### COMMENTS TO THE AUTHORS

Line 378. I think there is a need to expand more on the standardized development process of Choosing Wisely recommendations. This will answer the "why" clinicians were surveyed in the first place.

#### AUTHORS' RESPONSE

We have now outlined the development process for the draft Choosing Wisely recommendations, and provided more detail regarding how and why feedback from physiotherapist members of the Australian Physiotherapy Association was sought.

## (Page 6, 3rd paragraph)

In November 2015, the Australian Physiotherapy Association sent an email invitation to 20,029 physiotherapist members seeking feedback on a draft list of Choosing Wisely recommendations. The draft list of recommendations were developed by a process of consensus over a series of meetings between 6-8 physiotherapists (clinicians and academics) from different sub-disciplines (e.g. musculoskeletal, cardiorespiratory) and a Choosing Wisely representative. Participants were informed that the Australian Physiotherapy Association would use their feedback to improve the draft Choosing Wisely recommendations. All responses were anonymous as participants were not asked to provide any identifiable information (e.g. age, gender, contact details). The draft Choosing Wisely recommendations were largely similar to the current recommendations (Table 1).

#### **REVIEWER #2**

## COMMENTS TO THE AUTHORS

Section 1, 2nd paragraph grw should be grow.

## **AUTHORS' RESPONSE**

We thank the reviewer for pointing this out. We have fixed this error.

## COMMENTS TO THE AUTHORS

Section 2, 2.1 study design - this short paragraph needs re-wording to inform the reader of the study design (cross sectional online survey which utilised content analysis) not just content analysis.

## **AUTHORS' RESPONSE**

We have revised the study design section according to the reviewers comments.

# (Page 6, 2nd paragraph)

We performed a cross-sectional online survey that utilised a content analysis of free-text responses from members of the Australian Physiotherapy Association regarding a list of Choosing Wisely recommendations.

### COMMENTS TO THE AUTHORS

All references need to be reviewed, in particular in section 4.3 reference 18 is incorrect, n the second paragraph of this section ref 21 in misleading as the quoted research did not look at physiotherapists nor did ref 23. References 24 and 25 have not been included in the reference list..

## AUTHORS' RESPONSE

We thank the reviewer for pointing out these errors. We have fixed the references.

## **REVIEWER #3**

## **COMMENTS TO THE AUTHORS**

This is an important area of research, the authors ask important questions. A major drawback of the study is the low response rate. The analysis of comments provides insights into clinician behavior and reasons for making evidence-based guideline recommendations discordant decisions.

#### AUTHORS' RESPONSE

We thank the reviewer for their positive comments. We agree the low response rate is a limitation of the study. This has been acknowledged in the discussion.

## (Page 17, 1st paragraph)

The main weakness is the low response rate to the survey (5.6%). Our sample might therefore not be representative of all members of the Australian Physiotherapy Association; this reduces our confidence in the quantitative results of our study.

### **VERSION 2 - REVIEW**

REVIEWER	Simon Décary
	Université Laval
REVIEW RETURNED	08-Sep-2019

GENERAL COMMENTS	I have read through the revised manuscript and all new supplementary material. The authors provided extensive editing and reviewing following my comments. I am entirely satisfied with their answers.
	Among the major points, the authors now provide the details of their coding framework by sections (recommendations) and provide more details in the methods section. I am confident in the validity of their approach. Also, I agree that the "level of agreement" is definitely important in the paper.
	The authors also transformed supplementary materials into tables for the main text. I believe this improve the readability and understanding of the paper. I raised the concern that the primary and secondary outcome could be inverted. After reading the new version with the coding details and explanations, I agree with the authors that it was not necessary to make the inversion and the current version is now very clear.
	In my opinion, I consider this manuscript ready for publication.
	Great job.