



RESEARCH ARTICLE

REVISED Completeness of reporting acupuncture interventions for chronic obstructive pulmonary disease: Review of adherence to the STRICTA statement [version 3; peer review: 2 approved]

Previously titled: Quality of reporting acupuncture interventions for chronic obstructive pulmonary disease: Review of adherence to the STRICTA statement

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Abstract

Background: The completeness of reporting of acupuncture interventions is critical to ensure the applicability and reproducibility of acupuncture clinical trials. In the past, different publications have evaluated the completeness of reporting of acupuncture interventions for different clinical situations, such as knee osteoarthritis, neurological diseases or cancer. However, this has not been done for acupuncture trials for chronic obstructive pulmonary disease (COPD).

Objective: To assess the completeness of reporting of acupuncture interventions in trials for COPD.

Methods: A total of 11 English and Chinese databases were screened up until May 2019 for randomised or quasi-randomised control trials of acupuncture for COPD. The STRICTA checklist was used to determine the quality of the reporting of acupuncture interventions.

Results: A total of 28 trials were included in our review. Out of the 16 STRICTA checklist subitems analysed, only 4 were considered appropriately reported in more than 70% of the trials, while 7 were correctly reported in less than 30%.

Open Peer Review

Approval Status

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version 3 (revision) 20 Nov 2020	 view	 view
version 2 (revision) 23 Oct 2020	↑	↑ view
version 1 02 Apr 2020	 view	

1. **Erik Cobo** , Polytechnic University of Catalonia, Barcelona, Spain

2. **David Blanco** , Universitat Internacional de Catalunya, Barcelona, Spain

Any reports and responses or comments on the article can be found at the end of the article.

Conclusion: The adherence to STRICTA guidelines of acupuncture trials for COPD is suboptimal, and future efforts need to be addressed to improve the completeness of reporting.

Keywords

Quality of Reporting, Acupuncture, COPD

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REVISED Amendments from Version 2

The term “quality of reporting”, has been changed to “completeness of reporting” as “quality” is an ambiguous and problematic word, and to use.

A mistake in the result section in the abstract has been corrected.

Also, several clarifications have been made in the introduction and methods sections.

In the results section, a new paragraph has been added to give an “overall summary” of the results.

Finally, a new paragraph has been added in the discussion section to address possible interventions to improve the completeness of reporting.

Any further responses from the reviewers can be found at the end of the article

Introduction

Recent systematic reviews have assessed acupuncture’s efficacy for chronic obstructive pulmonary disease (COPD)¹⁻³. These reviews have concluded that, even though acupuncture could have some benefits, the risk of bias of the included trials is too high to draw any strong conclusion. Risk of bias is certainly a critical aspect in randomised control trials; however, to be able to adequately assess sources of bias, complete information needs to be reported.

Complete and clear information regarding clinical trial methodology is not only essential to adequately assess health research but also for its applicability and reproducibility. This is especially important in complex interventions, such as acupuncture, that can be practiced in many different styles and variations. Aspects such as point selection, depth of the insertion, stimulation method and response sought, which may be very different between practitioners, could have an impact on the therapeutic effect⁴. Therefore, to be able to replicate an acupuncture intervention in clinical practice or reproduce it in another trial, it is necessary to fully describe how it is applied.

The Standards for Reporting Interventions in Controlled Trials of Acupuncture (STRICTA) guidelines were created to improve the completeness of reporting in acupuncture trials and facilitate transparency in published reports⁵. These guidelines were updated in 2010 as an extension of the CONSolidated Standards Of Reporting Trials (CONSORT) guidelines⁶ and consist of 6 key items and 17 subitems addressing aspects such as acupuncture rationale, needling details, treatment regime, other components of the treatment, practitioner background and details about the control or comparator.

Although there is evidence that STRICTA guidelines have helped to improve acupuncture’s reporting, there is still a lot of room for improvement⁷. This has also been seen in recent publications for some specific conditions such as neurological diseases⁸⁻¹⁰ or cancer¹¹, concluding that reporting is still suboptimal in these conditions. However, to our knowledge, there is

currently no publications regarding the completeness of reporting of acupuncture interventions in COPD trials.

Evaluating the adherence of acupuncture clinical trials for COPD to STRICTA guidelines is crucial to detect underreported subitems and therefore highlight current deficiencies. This will help to improve the reporting of future trials and facilitate their applicability in clinical practice and the reproducibility of future research.

The aim of this study is to comprehensively evaluate the degree of completeness of reporting for each STRICTA item in randomised trials using acupuncture.

Methods**Study selection**

In this study, we used the results of our previous systematic review, which included randomised or quasi-randomised trials using filiform needle acupuncture for COPD². Published studies were comprehensively searched in the following databases from their inception to May 2019: Cochrane Central Register of Controlled Trials (CENTRAL), Medline, Embase, CINAHL, AMED (Ovid), PEDro, PsycINFO, CNKI, VIP, Wanfang, and Sino-Med. Detailed descriptions of the inclusion criteria, information sources, search strategies and study selections are published elsewhere² and the protocol is available at http://www.crd.york.ac.uk/PROSPERO/display_record.asp?ID=CRD42014015074.

Data collection process

Data from each trial was extracted independently by two reviewers (CFJ, MSM, MY and CHL) using a standardised data extraction form, and disagreements were solved by consensus.

For data collection and STRICTA assessment, a specific extraction table with instructions of how to assess each of the 16 STRICTA subitems was created by the authors (*Extended data*¹²). This extraction table was tested with pilot data of 3 papers to solve disagreements on its understanding and ensure its usability. The data of the pilot test was included in the final analysis.

Our aim was to assess the acupuncture interventions, and therefore, the 17th STRICTA subitem “precise description of the control or comparator” was not considered. However, we did include the 16th STRICTA subitem “rationale of the chosen comparator”, since it is critical to justify which component of the acupuncture treatment is being assessed.

Since some STRICTA subitems refer to multiple aspects (e.g., “names of points used” subitem refers not only to the name or location of points but also to if they are used unilaterally or bilaterally), besides considering items just as reported or not reported, we also considered partially reported items and recorded the reasons for there being. This was done to provide more detailed information regarding the aspects that should be improved in the reporting of future trials. Partial reporting was also considered when the authors reported information in other sections, such as the introduction or the discussion.

Although some subitems were considered that could potentially be “not applicable” (NA) for some pragmatic designs, none of the trials required this.

Data analysis

A descriptive analysis was used to summarise the results using percentages and absolute numbers.

Results

Number of publications and characteristics

In our systematic review, we screened all 5030 unduplicated titles and abstracts retrieved, and obtained 166 full text articles. Finally, we included 28 trials using filiform needles for COPD (Figure 1). Of those, only 6 were published in English-language journals, 1 in a German-language journal and 21 in Chinese-language journals. Details regarding the study characteristics and inclusion process have been published elsewhere².

Completeness of reporting

Out of the 16 STRICTA checklist subitems analysed, only 4 were considered appropriately reported in more than 70% of the trials; style of acupuncture, variation extent, retention time and frequency and duration of treatment sessions. We also found that 7 other subitems were correctly reported in less than 30% of the trials; depth of insertion, needle type, number of treatment sessions, details of other interventions administered, setting and context of treatment, description of participating acupuncturists and rationale for the control.

Ratings for STRICTA domains are summarized in Figure 2. Details for each trial are shown in Table 1, including reasons for considering partial reporting.

Acupuncture rationale. Acupuncture rationale was considered adequately reported in 20 trials (71%) regarding acupuncture

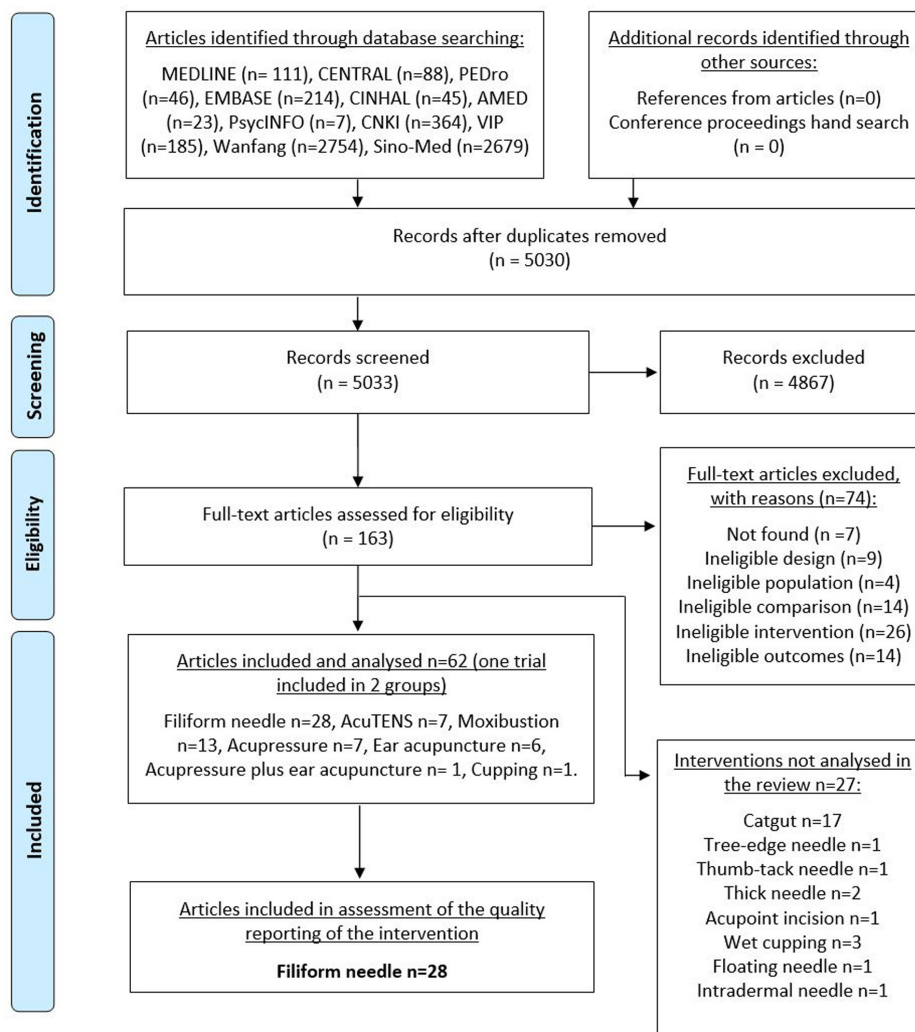


Figure 1. Flow diagram.

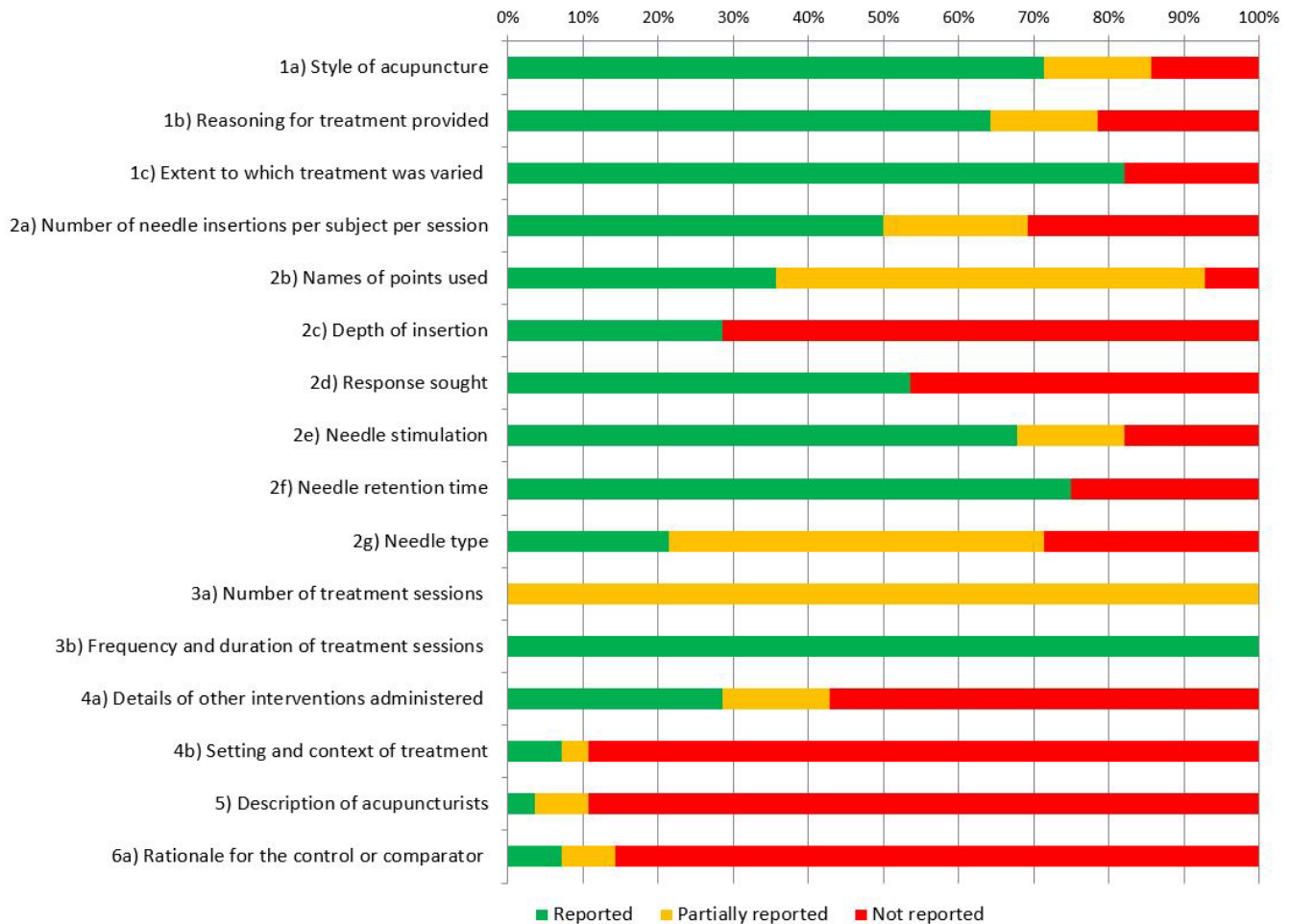


Figure 2. Summary of completeness of reporting according to STRICTA guidelines.

style, 18 trials (64%) regarding reasoning of the treatment and 24 trials (85%) regarding treatment variation. Trials classified with partial reporting mentioned acupuncture style (3 trials) and reasoning (4 trials) in the introduction section but not in the methods section.

Details of needling. Adequate reporting of needling details was very heterogenous along all 4 subdomains. Best reported subdomains were “needle retention time” (21 trials, 75%) and “needle stimulation” (19 trials, 67%). Worse reported items were “name of the points” (10 trials, 35%), “depth of insertion” (8 trials, 28%) and “needle type” (6 trials, 21%). Partial reporting was observed in great proportion in “name of acupuncture points” (16 trials, 57%) being the main reason not describing if points were used unilaterally or bilaterally. Regarding the 46% of the trials classified with a partial reporting in the “needle type” item, there was missing information about the needle manufacturer (32.1%, 9 trials), material (25%, 7 trials) and length and diameter (10.7%, 3 trials).

Treatment regime. While “frequency and duration of the treatment sessions” was considered adequately reported for all

trials (100%), the “number of treatment sessions” was considered completely reported in none of them (0%). Although this might seem a contradiction, since the number of treatment sessions can be calculated from the treatment regime, in STRICTA, the number of treatment sessions does not only include the planned number of sessions but also the actual number of treatments received. This information was missing or considered not clear in all trials.

Other components of treatment. Other components of treatment were one of the poorer described items. “Details of other interventions administered” was only reported in 8 trials (28%) and “settings and context of treatments”, which refers to “instructions to practitioners that might modify their normal practice, for example, prescribing or proscribing explanations to patients about their diagnosis”, were only reported in 2 trials (7.1%).

Practitioner background. This item was only addressed completely in 1 trial (3.5%), and only 2 more trials (7.1%) partially reported it without stating practitioner’s years of experience.

Control or comparator. The “rationale of the chosen comparator” was only correctly described in 2 trials (7.1%), while in 2

Table 1. Completeness of reporting according to STRICTA guidelines.

STRICTA Items		Reported, % (n)	Not reported, % (n)	Partially reported, % (n) Reason, % (n)
1) Acupuncture rationale	1a) Style of acupuncture	71.4 (20)	14.2 (4)	14.2 (4) Not reported in the correct section, 14.2 (4)
	1b) Reasoning for treatment provided, based on historical context, literature sources, and/or consensus methods, with references where appropriate	64.2 (18)	21.4 (6)	14.2 (4) Not reported in the correct section, 14.2 (4)
	1c) Extent to which treatment was varied	82.1 (23)	17.8 (5)	0 (0)
2) Details of needling	2a) Number of needle insertions per subject per session	46.4 (13)	28.5 (8)	17.8 (5) Do not mention the number of needles, 17.8 (5)
	2b) Names (or location if no standard name) of points used (uni/bilateral)	35.7 (10)	7.14 (2)	57.14 (16) Do not mention uni or bilateral insertion, 53 (15) Not all point locations are described, 3.5 (1)
	2c) Depth of insertion, based on a specified unit of measurement or on a particular tissue level	28.5 (8)	71.4 (20)	0 (0)
	2d) Responses sought	53.5 (15)	46.4 (13)	0 (0)
	2e) Needle stimulation	67.8 (19)	17.8 (5)	14.2 (4) Manual stimulation is mentioned but the specify the method is not, 10.7 (3) Electrical stimulation is mentioned but not parameters used, 3.5 (1)
	2f) Needle retention time	75 (21)	25 (7)	0 (0)
	2g) Needle type	21.4 (6)	28.5 (8)	50 (14) Material is not reported, 25 (7) Manufacturer is not reported, 32.1 (9) Diameter and length are not reported, 10.7 (3)
3) Treatment regime	3a) Number of treatment sessions	0 (0)	0 (0)	100 (28) The actual number of treatments received is not reported or not clear, 100 (28)
	3b) Frequency and duration of treatment sessions	100 (28)	0 (0)	0 (0)
4) Other components of treatment	4a) Details of other interventions administered to the acupuncture group	28.5 (8)	57.1 (16)	14.2 (4)
	4b) Setting and context of treatment, including instructions to practitioners, and information and explanations to patients	7.1 (2)	89.2 (25)	3.5 (1)
5) Practitioner background	5) Description of participating acupuncturists	3.5 (1)	89.2 (25)	7.1 (2) Years of experience not mentioned, 7.1 (2)
6) Control or comparator interventions	6a) Rationale for the control or comparator	7.1 (2)	85.7 (24)	7.1 (2) Not reported in the correct section: 7.1 (2)

STRICTA, Standards for Reporting Interventions in Clinical Trials of Acupuncture.

more trials (7.1%), this was mentioned in the introduction but not in the methods section.

Discussion

We found important limitations in the completeness of reporting of acupuncture interventions in trials for COPD, especially regarding “depth of insertion”, “needle type”, “number of treatment sessions”, “details of other interventions administered”, “setting and context of treatments”, “description of acupuncturist” and “rationale for the control or comparator” with less than 30% of the trials reporting them completely.

Recently, several similar studies have been published. Lu *et al.*¹¹ and Hughes *et al.*¹³ used STRICTA to evaluate trials with cancer patients, and Wei *et al.* used STRICTA to evaluate trials with stroke patients⁸. Although they all concluded that reporting should be improved, there were also some differences. While Hughes *et al.* found better reporting regarding details of needling and treatment regimen, other reviews found lower reporting on these subitems, especially regarding number of needles per session and depth of insertion. Poor reporting on “details of other interventions administered”, “description of acupuncturist” and “rationale for the control or comparator” subitems was found in all studies.

The differences mentioned above could be due to several reasons. First, Lu’s and Weis’s reviews, as well as our own, included Chinese-language trials, while Hugs’ study included only English-language trials. Trials published in English-language journals seem to have greater completeness of reporting than those in Chinese-language journals, according to Lu’s review. However, Wei *et al.* found better reporting of the subitems “treatment reasoning” and “response sought” in Chinese journals and better reporting on “practitioner’s background” in English journals.

Second, since STRICTA does not clearly specify how items should be judged, authors might have used different criteria. For example, regarding the subitem “number of treatment sessions”, the STRICTA statement says that “the actual number of treatments received by participants should be reported in the Results section” not only the planned ones. Whereas in our review, we did not consider that this subitem was fully reported unless this information was explicitly stated; others might have been more permissive. Also, the criteria to consider proper reporting on “other components of treatment” might vary widely between reviewers.

Third, sometimes information might have been reported in sections such as the introduction and the discussion. While some authors might not have given much importance to this, we decided to take it into consideration.

To try to improve the adherence to reporting guidelines several strategies have been proposed including training on the use of the guidelines, improving understanding, encouraging adherence, checking adherence and providing feedback, and the involvement of experts. Unfortunately, the effectiveness of many of those interventions is still unknown¹⁴

Strengths and limitations

To our knowledge, this is the first study to assess the completeness of reporting of acupuncture interventions for COPD. We included all acupuncture trials for COPD published until May 2019 with no language restriction, which is important since we only found 6 acupuncture trials published in English. Also, we did not only assess if STRICTA subitems were adequately reported or not but also analysed partial reporting and its reasons, which might be more helpful for authors to realise what specific information is currently missing.

Limitations of this study include that the STRICTA guidelines are not a rating scale; therefore, there are no clear indications of how to judge each subitem and when to consider it fully reported. This issue must be addressed in the future by developing a proper completeness of reporting assessment tool for acupuncture interventions. To minimise this problem, each item was assessed by two reviewers independently, and a standardised extraction form was developed to unify reviewers’ criteria. Also, it would have been interesting to compare the completeness of reporting depending on the language of publication, so we could explore differences in journal standards. However, due to the low number of non-Chinese-language publications found (1 in German and 6 in English), we decided not to do so. Finally, STRICTA guidelines are specific for the filiform needle acupuncture technique and are not suitable to assess other interventions. Therefore, we did not include trials using only moxibustion, acupressure or transcutaneous electrical nerve stimulation.

Conclusion

The completeness of reporting of acupuncture interventions in COPD trials according to STRICTA guidelines is suboptimal. Strategies for improving the understanding of the guides for authors, reviewers and journal editors are needed, as well as to improve its implementation.

Data availability

Underlying data

Figshare: Raw data file, <https://doi.org/10.6084/m9.figshare.11999970.v1>¹⁵.

Extended data

Figshare: Extended data 1 Extraction form, <https://doi.org/10.6084/m9.figshare.11999994.v1>¹².

Data is available under a [Creative Commons Attribution 4.0 International license](#) (CC-BY 4.0).

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Open Peer Review

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Reviewer Report 01 December 2020

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Erik Cobo 

Statistics and Operations Research Department, Polytechnic University of Catalonia, Barcelona, Spain

Thanks for considering most of my suggestions. I think the paper is now much clearer and probably more reproducible.

Competing Interests: No competing interests were disclosed.

Reviewer Expertise: Clinical trials; Reporting Guidelines; meta-research; research waste

I confirm that I have read this submission and believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard.

Reviewer Report 23 November 2020

<https://doi.org/10.5256/f1000research.30829.r75126>

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David Blanco 

Physiotherapy Department, Universitat Internacional de Catalunya, Barcelona, Spain

I am happy with this new version of the manuscript. It is clear and well-reported. Congratulations on your work and thank you for the opportunity to review it!

Competing Interests: No competing interests were disclosed.

Reviewer Expertise: Journal policies, peer review, reporting guidelines

I confirm that I have read this submission and believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard.

Version 2

Reviewer Report 13 November 2020

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David Blanco 

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Thank you for allowing me to review this manuscript. The subject is the evaluation of the degree of adherence to STRICTA guideline items in the context of acupuncture trials. Overall, I find the manuscript attractive and well-written.

I hope the authors find the following suggestions helpful:

General comments

- Despite being a term commonly used in the literature, I would suggest authors to avoid using “quality of reporting”, as “quality” is an ambiguous and problematic word, and to use “completeness of reporting”, which is clearer and more connected to reporting guidelines^{1 2}

Abstract

- If you include the sentence: “Out of the 16 STRICTA checklist subitems analysed, only 3 were considered appropriately reported in more than 70% of the trials, while 7 were correctly reported in less than 40%.” you would also need to include this information in the Results section (perhaps as a first paragraph of the “Quality of reporting” subsection). As a reader, I would appreciate to have in the main body of the article some sort of “overall summary” of the completeness of the included papers and not just the results for each separate item.

Introduction

- In the last sentence of the first paragraph, you seem to imply that the risk of bias of a certain study and its quality of reporting have no connection. In fact, complete and transparent reporting is what makes it possible for a reviewer to assess the risk of bias of a study. I believe this point deserves to be reflected in the paper.
- Importantly, the fact that you state, “The aim of this study is to comprehensibly evaluate the adherence to STRICTA guidelines of trials using acupuncture for COPD”, could make the reader think that you are going to use the percentage of completeness per trial as the unit of interest. However, you are analysing the percentage of completeness per STRICTA item. I would therefore suggest to reformulate the study aim to avoid confusion: “The aim of this study is to comprehensibly evaluate the degree of completeness of reporting for each

STRICTA item in randomised trials using acupuncture” or something similar.

Methods

- It would be helpful that you explain in a few words what was the structure of the standardized data extraction form and what you were interested in looking at.
- Were the three papers you used for the pilot also included in the final analysis? This should be mentioned.

Discussion

- In the first paragraph of the discussion, it would be good to mention in brackets the criteria that you chose to highlight these underreported items (% of adequate reporting less than X%?)
- The sentence “The differences between studies could be due to several reasons” should be placed at the beginning of the next paragraph as it is heavily connected with it. For example, “The differences between the studies we mentioned above could be due to several reasons.”
- Concerning the (very appropriate) point you make in the fourth paragraph, you could also mention that RGs are originally just guidance for writing and they are not intended to be evaluation forms despite everyone uses them as such³.
- I would also better argue why you took into consideration (and considered as “partially reported” instead of fully reported) those items that were reported in a different section. I guess that when you say section you refer to the main 4 sections (IMRaD) – perhaps you could make it clearer in the methods.
- For me, it is not enough to say “Strategies for improving the understanding of the guides for authors, reviewers, and journal editors are needed, as well as to improve its implementation”. You should definitely include a paragraph in the Discussion section reflecting on what kind of strategies targeting authors, peer reviewers, or journal editors could work in the particular context of acupuncture journals (or more generally, if you prefer so). In the introduction, you mentioned, “This will help to improve the reporting of future trials and facilitate their applicability in clinical practice and the reproducibility of future research.” However, I believe that it is not enough to point out that there are reporting issues without reflecting on what kind of strategies should journals follow to turn things around. As you probably know, some recent experiments are testing out different editorial strategies^{4 5 6 7 8} as well as different scoping and systematic reviews/surveys exploring this issue.

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Is the work clearly and accurately presented and does it cite the current literature?

Partly

Is the study design appropriate and is the work technically sound?

Yes

Are sufficient details of methods and analysis provided to allow replication by others?

Yes

If applicable, is the statistical analysis and its interpretation appropriate?

Yes

Are all the source data underlying the results available to ensure full reproducibility?

Yes

Are the conclusions drawn adequately supported by the results?

Yes

Competing Interests: No competing interests were disclosed.

Reviewer Expertise: Journal policies, peer review, reporting guidelines

I confirm that I have read this submission and believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard, however I have significant reservations, as outlined above.

Author Response 15 Nov 2020

Carles Fernández, School of Health Science Blanquerna, Ramon Llull University, Barcelona, Spain

We thank you for your time and comments on the manuscript. Please find below a point by point response to them:

General comments

- Despite being a term commonly used in the literature, I would suggest authors to avoid using “quality of reporting”, as “quality” is an ambiguous and problematic word, and to use “completeness of reporting”, which is clearer and more connected to reporting guidelines^{1 2}.

Response: We agree with the suggestion and have changed “quality of reporting” for “completeness of reporting”.

Abstract

- If you include the sentence: “Out of the 16 STRICTA checklist subitems analysed, only 3 were considered appropriately reported in more than 70% of the trials, while 7 were correctly reported in less than 40%.” you would also need to include this information in the Results section (perhaps as a first paragraph of the “Quality of reporting” subsection). As a reader, I would appreciate to have in the main body of the article some sort of “overall summary” of the completeness of the included papers and not just the results for each separate item.

Response: We have now added the information at the beginning of the results section.

Introduction

- In the last sentence of the first paragraph, you seem to imply that the risk of bias of a certain study and its quality of reporting have no connection. In fact, complete and transparent reporting is what makes it possible for a reviewer to assess the risk of bias of a study. I believe this point deserves to be reflected in the paper.

Response: We agree with the reviewers comments and therefore, we modified our last sentence to show that risk of bias and its quality of reporting are connected “Risk of bias is certainly a critical aspect in randomised control trials; however, to be able to adequately assess sources of bias, complete information needs to be reported.”

- Importantly, the fact that you state, “The aim of this study is to comprehensibly evaluate the adherence to STRICTA guidelines of trials using acupuncture for COPD”, could make the reader think that you are going to use the percentage of completeness per trial as the unit of interest. However, you are analysing the percentage of completeness per STRICTA item. I would therefore suggest to reformulate the study aim to avoid confusion: “The aim of this study is to comprehensibly evaluate the degree of completeness of reporting for each STRICTA item in randomised trials using acupuncture” or something similar.

Response: We have reformulated the aim of the study to avoid confusions as the reviewer suggested.

Methods

- It would be helpful that you explain in a few words what was the structure of the standardized data extraction form and what you were interested in looking at.

Response: The structure of the standardized data extraction table is fully available as extended data

- Were the three papers you used for the pilot also included in the final analysis? This should be mentioned.

Response: Yes, the pilot data extraction was included in the analysis. This has been clarified

in the data collection section

Discussion

- In the first paragraph of the discussion, it would be good to mention in brackets the criteria that you chose to highlight these underreported items (% of adequate reporting less than X%?)

Response: This has been now described

“We found important limitations in the quality of reporting of acupuncture interventions in trials for COPD, especially regarding “depth of insertion”, “needle type”, “number of treatment sessions”, “details of other interventions administered”, “setting and context of treatments”, “description of acupuncturist” and “rationale for the control or comparator” with less than 30% of the trials reporting them completely.”

- The sentence “The differences between studies could be due to several reasons” should be placed at the beginning of the next paragraph as it is heavily connected with it. For example, “The differences between the studies we mentioned above could be due to several reasons.”

Response: This has been corrected

- Concerning the (very appropriate) point you make in the fourth paragraph, you could also mention that RGs are originally just guidance for writing and they are not intended to be evaluation forms despite everyone uses them as such³.

Response: This is explained in the limitations section “Limitations of this study include that the STRICTA guidelines are not a rating scale; therefore, there are no clear indications of how to judge each subitem and when to consider it fully reported. This issuer must be addressed in the future by developing a proper quality of reporting assessment tool for acupuncture interventions.”

- I would also better argue why you took into consideration (and considered as “partially reported” instead of fully reported) those items that were reported in a different section. I guess that when you say section you refer to the main 4 sections (IMRaD) – perhaps you could make it clearer in the methods.

Response: It was already explained in the methods section “Partial reporting was also considered when the authors reported information in other sections, such as the introduction or the discussion.”. However we have now clarified also in the discussion section “Third, sometimes information might have been reported in sections such as the introduction and the discussion.”

- For me, it is not enough to say “Strategies for improving the understanding of the guides for authors, reviewers, and journal editors are needed, as well as to improve its implementation”. You should definitely include a paragraph in the Discussion section reflecting on what kind of strategies targeting authors, peer reviewers, or journal editors could work in the particular context of acupuncture journals (or more generally, if you prefer so). In the introduction, you mentioned, “This will help to improve the reporting of future trials and facilitate their applicability in clinical practice and the reproducibility of future research.” However, I believe that it is not enough to point out that there are reporting issues without reflecting on what kind of strategies should journals follow to turn things around. As you probably know, some recent experiments are testing out different editorial strategies^{4 5 6 7 8} as well as different scoping and systematic reviews/surveys exploring this issue.

Response: A new paragraph in the discussion section about the topic has been added
"To try to improve the adherence to reporting guidelines several strategies have been proposed including training on the use of the guidelines, improving understanding, encouraging adherence, checking adherence and providing feedback, and the involvement of experts. Unfortunately, the effectiveness of many of those interventions is still unknown 14"

Competing Interests: No competing interests are disclosed

Version 1

Reviewer Report 06 October 2020

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Erik Cobo 

Statistics and Operations Research Department, Polytechnic University of Catalonia, Barcelona, Spain

I read this paper and I think it could be accepted provided authors correct my three major suggestions and address my minor suggestions.

Major suggestions:

- Please revise the numbers in your flow diagram and add explanations (maybe in a legend) about your more important labels, such as ineligible population/comparison/... Regarding the numbers, please note that the box "records screened" has more records than the previous one. Or than $62 >< 28+7+13+7+6+1+1=63$. Please also note that studies are not the same unit as articles. Please, unify.
- Please consider to re-write your conclusions clarifying which recommendations could potentially improve quality in the future. I mean, recommendations to STRICTA authors; recommendations to journals; recommendations to reviewers, recommendations to authors; and so on.
- Please, allow access to your data to other scientists. Please, consider a public repository.

Minor suggestions:

- As you stated, "the STRICTA guidelines are not a rating scale". However, you are repeating through the text that you are attempting to "assess the quality of reporting". I wonder if you should also highlight the need to further develop reporting guidelines to provide such a

tool to assess the quality of reporting. Should you speak about the completeness of reporting? I definitively like much more your statement “evaluate the adherence to Stricta guidelines”.

- In the introduction, I wonder if you should clarify that “risk of bias” applies to the study; and “quality of reporting” to the paper.
- Also in the introduction, you use the terms “replication” and “reproducibility”. I would like you to clarify your meanings, perhaps with some references. For example, are you following the definition from Goodman, Fannelly & Ioanidis in “What does research reproducibility mean?”¹
- Please, further specify how reviewers “worked in pairs”? Did they split the sample? Did both pairs of reviewers analyze some papers?
- Please, consider to explain the pilot process and how did you “ensure” its usability.

References

1. Goodman S, Fanelli D, Ioannidis J: What does research reproducibility mean?. *Science Translational Medicine*. 2016; **8** (341). [Publisher Full Text](#)

Is the work clearly and accurately presented and does it cite the current literature?

Yes

Is the study design appropriate and is the work technically sound?

Yes

Are sufficient details of methods and analysis provided to allow replication by others?

Yes

If applicable, is the statistical analysis and its interpretation appropriate?

Yes

Are all the source data underlying the results available to ensure full reproducibility?

No

Are the conclusions drawn adequately supported by the results?

Yes

Competing Interests: No competing interests were disclosed.

Reviewer Expertise: RCTs, reporting guidelines, causal modeling, meta-research

I confirm that I have read this submission and believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard, however I have

significant reservations, as outlined above.

Author Response 11 Oct 2020

Carles Fernández, School of Health Science Blanquerna, Ramon Llull University, Barcelona, Spain

We thank you for your time and comments on the manuscript. Please find below a point by point response to them:

Major suggestions:

Please revise the numbers in your flow diagram and add explanations (maybe in a legend) about your more important labels, such as ineligible population/comparison/... Regarding the numbers, please note that the box "records screened" has more records than the previous one. Or than $62 > 28+7+13+7+6+1+1=63$. Please also note that studies are not the same unit as articles. Please, unify.

As it is already explained in the figure, one trial included two interventions, that is why the total number of studies included is 62 but the summation of all the interventions is 63. Studies has been changed for articles in the diagram

Please consider to re-write your conclusions clarifying which recommendations could potentially improve quality in the future. I mean, recommendations to STRICTA authors; recommendations to journals; recommendations to reviewers, recommendations to authors; and so on.

Conclusions have been re-written to include the mentioned recommendations "The quality of reporting of acupuncture interventions in COPD trials according to STRICTA guidelines is suboptimal. Strategies for improving the understanding of the guides for authors, reviewers and journal editors are needed, as well as to improve its implementation."

Please, allow access to your data to other scientists. Please, consider a public repository.

The data is already public and available in the "data availability" section.

Minor suggestions:

As you stated, "the STRICTA guidelines are not a rating scale". However, you are repeating through the text that you are attempting to "assess the quality of reporting". I wonder if you should also highlight the need to further develop reporting guidelines to provide such a tool to assess the quality of reporting. Should you speak about the completeness of reporting? I definitively like much more your statement "evaluate the adherence to Stricta guidelines".

We agree on highlighting the need of developing a reliable tool for assessing the quality of reporting and this has been added in the discussion section.

We would prefer not to change the nomenclature as the real the objective of the study is to

assess the quality of reporting, and using the adherence to current reporting guidelines is the method to do so. We believe that introducing the term “completeness of the reporting” may confuse reader.

In the introduction, I wonder if you should clarify that “risk of bias” applies to the study; and “quality of reporting” to the paper.

This has been clarified in the introduction section
“Risk of bias of bias of the studies is certainly a critical aspect in randomised control trials; however, the quality of reporting of the published papers is also a key point.”

Also in the introduction, you use the terms “replication” and “reproducibility”. I would like you to clarify your meanings, perhaps with some references. For example, are you following the definition from Goodman, Fannelly & Ioanidis in “What does research reproducibility mean?”¹

Here replication and reproducibility are used in a common language sense and the meaning is clarified at the end of the introduction section:

“Therefore, to be able to replicate an acupuncture intervention in clinical practice or reproduce it in another trial, it is necessary to fully describe how it is applied.”

We believe that using the terms “methods reproducibility”, “Results reproducibility” or “inferential reproducibility” might not clarify but confuse the reader.

Please, further specify how reviewers “worked in pairs”? Did they split the sample? Did both pairs of reviewers analyze some papers?

Every paper was analysed by two reviewers, this has been now clarified in the methods section:

“Data from each trail was extracted independently by two reviewers (CFJ, MSM, MY and CHL) using a standardised data extraction form, and disagreements were solved by consensus.”

Please, consider to explain the pilot process and how did you “ensure” its usability.

This has been now clarified in the “data collection process” section.

“This extraction table was tested with pilot data of 3 papers to solve disagreements on its understanding and ensure its usability.”

Competing Interests: No competing interests were disclosed.

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