ORIGINAL ARTICLE

Reporting guidelines on how to write a complete and transparent abstract for overviews of systematic reviews of health care interventions

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Abstract

Objective: An overview of systematic reviews (OoSRs) is a study designed to offer a broad view of evidence from existing systematic reviews (SRs). The abstract is an important part of an OoSRs as it can determine whether reading the full text is of interest. The aim of this article is to offer guidelines to promote transparent and sufficient reporting in abstracts of OoSRs of health care interventions.

Study Design and Setting: The items were developed by combining key features from abstracts of OoSRs, PRISMA for abstracts, and our published reporting guidelines for OoSRs. The initial version was distributed to experts to give feedback; pilot testing by a group of researchers followed. The refined checklist was applied by two reviewers independently in a sample of 40 abstracts.

Results: The developed instrument "Preferred Reporting Items for OoSRs abstracts" (PRIO for abstracts) consists of six sections with 15 topics including 20 items in total. The mean inter-rater reliability was 0.87 (95% confidence interval: 0.82, 0.92). An explanation and at least one published example of good reporting per item are provided.

Conclusion: This instrument will assist authors in writing transparent and informative abstracts for OoSRs and can be adopted by journals that publish OoSRs. © 2018 Elsevier Inc. All rights reserved.

Keywords: Abstract; Checklist; Overview of systematic reviews; PRIO for abstracts; PRIO-Harms; Reporting guidelines

1. Introduction

An overview of systematic reviews (OoSRs) is a type of publication that has emerged as a result of the rapid increase in the number of published systematic reviews (SRs) [1]. This study design aims at integrating all existing evidence from multiple SRs and addresses a broad spectrum of research questions in a given field using systematic and explicit methods [2,3].

The abstract (or summary) is an important part of an OoSRs, as it can determine whether reading the full text is of interest. It targets a broad audience (researchers and policy makers but also consumers of health care) [4] and may be the only source of information freely available from electronic databases, so it should be read independently as a stand-alone document. However, the limited space for abstracts leads authors to make difficult decisions on prioritizing information.

The abstract should provide a rigorous and comprehensive summary in plain language and gather the essential information of the article's main text in ordered sequence sections (e.g., background, objectives, methods, results, and conclusions) [3−5]. Although, today, most of the reporting guidelines [3,4,6−8] suggest the adoption of a structured abstract (a paragraph with bold headings for each section) (Box 1), a previous study [14] found that more than 40% of the OoSRs did not follow a structured format for their abstracts. This may be mainly because of the type of publication (e.g., reviews) and the fact that there are many journals with no comprehensive standardization in abstracts (e.g., specific journals do not support sections with bold headings [unstructured abstracts] [9]). In such cases the abstract for OoSRs should be representative of the article's content.

After the title, the abstract is the most accessed part of a biomedical study [7]. Care should be taken from both authors and editors for informative reporting in OoSRs

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What is new?

Key findings
- PRIO for abstracts is a checklist with a set of 20 items.
- This tool aims to promote clear, transparent, and sufficient reporting in abstracts of overview of systematic reviews (OoSRs) of health care interventions.

What this adds to what was known?
- The development of PRIO for abstracts was undertaken because there is no existing guideline on this topic.
- It could be considered as a modified and extended version for abstracts of OoSRs derived from the PRISMA for abstracts.

What is the implication and what should change now?
- The PRIO for abstracts tool can be helpful for overview authors, editors, reviewers and clinicians and it could be introduced and adopted by journals that publish OoSRs.

Box 1 Terminology

Structured abstract—A brief summary of the study with bold headings for each section (e.g., background, objectives, methods, results, and conclusion) [9].

Unstructured abstract—A brief summary of the study in a paragraph without bold headings [9].

Overlapping—Overlapping is the situation when primary studies are included in more than one eligible systematic review and may result in double counting of data. A measure of overlap in OoSRs is the corrected covered area [10].

Index publication—Index publication is the first occurrence of a primary publication in the included reviews (another terminology used is "unique primary study") [10].

Efficacy—Efficacy is the extent to which an intervention does more good than harm under ideal circumstances ("Can it work?") [11].

Effectiveness—Effectiveness assesses whether an intervention does more good than harm when provided under usual circumstances of health care practice ("Does it work in practice?") [11].

"Harms"-related terms—terms such as adverse effects, adverse events, adverse reaction, complications, harms, safety, side effects, tolerability, tolerance, and toxicity [12,13].

abstracts. Currently, our published article for preferred reporting items for OoSRs for health care interventions [6] offers some guidance for the structure and content of abstracts. For instance, abstracts should report any findings for harms, regardless of the outcome's priority or space limitations in the results section; however, formal specific instructions about key elements of an abstract for this type of publication should be reported in detail separately. The aim of this study was to offer reporting guidelines to promote clear, transparent, and sufficient reporting in abstracts of OoSRs of health care interventions. The suggested items and headings of the checklist can be used for writing abstracts that are submitted in journals or conferences.

2. Methods

The authors of OoSRs need to provide detailed, high-quality information in the abstracts. It is therefore imperative that standardized guidance on the reporting of abstracts of OoSRs should be developed and endorsed by journals as there are no existing guidelines on this topic so far.

We convened a multidisciplinary team of six researchers (core team) with expertise in medical research methodology, medical statistics, and public health to develop the checklist for OoSRs abstracts. Two researchers of the core team (K.I.B., A.B.H.) are also the first and corresponding authors

of the recently published reporting guidelines for OoSRs (PRIO-harms) [6]. The development process involved a series of four consecutive steps consisting of (1) development of the initial set of items and first draft of the tool; (2) content validity; (3) pilot testing; and (4) inter-rater reliability (IRR) testing. These steps are described in greater detail in the following.

2.1. Development of the initial set of items and first draft of the tool

An initial set of items to be considered for inclusion in the checklist was generated from PRISMA for abstracts [7], our recently published reporting guidelines for OoSRs (PRIO-harms) [6], and key features in abstracts of OoSRs of health care interventions that were found by systematic searching MEDLINE (via Ovid), Scopus, and Cochrane Database of Systematic Reviews (via Cochrane Library) from January 1, 2000 to July 28, 2018 (last update) (Appendix 1). The search was limited to English-language articles and humans. Other sources of overviews of intervention SRs were the Evidence-Based Child Health journal and the reference lists of specific articles.

The elements deemed most essential were recorded and refined during the core team (authoring team) meetings to produce an initial draft (26 items) of the tool by consensus (Appendix 2).

2.2. Content validity

To assess content validity, the draft document containing the initial set of items with at least one published example of good reporting for each item was send via email to five experts that were requested to give us feedback. The checklist was accompanied by a clear explanation of the objectives of the study and specific instructions for participation. The international multidisciplinary expert panel consisted of two reputable academic professors in medicine, experienced methodologists, and editors; two experienced researchers with specific expertise in methods for conducting OoSRs; and one distinguished pediatric surgeon with research interest in conducting OoSRs and developing research tools. In addition, the panelists were located at different settings across the world (Australia, Croatia, Canada, United Kingdom, and New Zealand); they did not know the identities of the other individuals in the group, nor did they know the specific answers that any other individual gave.

Each expert was asked to mark "yes" (include the item in the checklist) or "no" (the item is not needed) next to each item. Furthermore, experts were given the opportunity to provide comments (e.g., reasons for their decision) and suggest modification or additional pertinent items that may not have been considered when developing the initial list of items. Because there were five experts participating in consensus development, items required 100% agreement from the panelists to be accepted or omitted [15]. Items not meeting perfect agreement were further discussed until consensus was reached. The resulted updated version went through pilot testing.

2.3. Pilot testing

The revised checklist underwent pilot testing by a group of four physicians (one resident and one consultant in internal medicine, one resident in hematology, and one resident in gastroenterology) and one nutritionist. All the participants were experienced in medical research methodology, they were members of the Clinical Research & Evidence-Based Medicine Unit in Thessaloniki, Greece, and they had not been involved in the development of the checklist. A discussion meeting before the pilot testing of the checklist was held to define the items and gave representative examples from published abstracts of the health care literature. After the meeting, participants had a 7-day period to independently apply the checklist to three recently published OoSRs abstracts [16−18] and answer a questionnaire (Appendix 3) on the applicability, utility, clarity, and quality of the proposed checklist. The questions were obtained from a previous work [19] and adapted appropriately according to this study's purpose. Written comments (e.g., rewording) for each item were used to refine the checklist, followed by discussion about prioritizing the items (e.g., noted some of them as highly recommended).

2.4. Inter-rater reliability testing of the refined checklist

After the pilot testing, IRR for the refined checklist was examined using a convenience sample of 40 abstracts (Appendix 4) from a selection of published OoSRs of health care interventions that were retrieved by our search strategy.

Two raters (K.I.B., E.B.) used the refined checklist to independently assess the completeness of reporting of each abstract for the included OoSRs. The possible answers included "Yes", "Partially yes", "No", or "Not applicable" depending on the item. The data were saved in Excel spreadsheets. Decision rules were predefined in a meeting before starting the assessment of the abstracts.

The percentage of agreement for each item was calculated by dividing the total number of rater agreement by the total number of abstracts reviewed. Furthermore, we calculated the IRR using the Gwet's AC1 statistic with 95% confidence intervals (CIs) for each item of the checklist. The AC1 index is considered to be a better alternative to Cohen's Kappa coefficient (k) [20,21]. Any values that lie between 1.00 (perfect agreement) and 0.00 (any agreement is totally due to chance) are expected. Values close to 1.00 indicate high agreement between the raters, whereas values further away indicate low agreement. The minimum agreement score that was considered as valid to maintain a certain item in the final tool without any changes was set as 0.70 (good level of agreement [21,22]). The "rel" package in R version 3.5.0 was used for the analysis [23].

The final version of the checklist was redistributed to all the members of the development phase of the tool (authors, panel experts, and participants of the pilot testing) and it was approved to be published. Figure 1 shows a flow diagram of the checklist development process.

3. Results

3.1. Content validity and pilot testing

We found that half (13/26) of the initial items met 100% agreement (5/5 experts agree to be included) (Appendix 2). The rest of the items reached 80% (4/5 experts) agreement or were proposed as optional and were refined or modified for inclusion according to feedback provided by the expert panel. Only item 9a ("Present the number of total records") was decided after discussion to be excluded from the list (Appendix 2) because it was evaluated as less important to be included in abstracts given the word restrictions. On the other hand, based on the suggestions of the experts, a new item about the overlapping of the SRs entitled "Report how overlapping SRs were handled (e.g., include only the most updated SR, the most methodologically rigorous SR or the SR with larger number of primary studies)" was decided to be added in the checklist. Moreover, the comments of the panel were used to improve our initial version of the tool by combining items, rewording and prioritizing
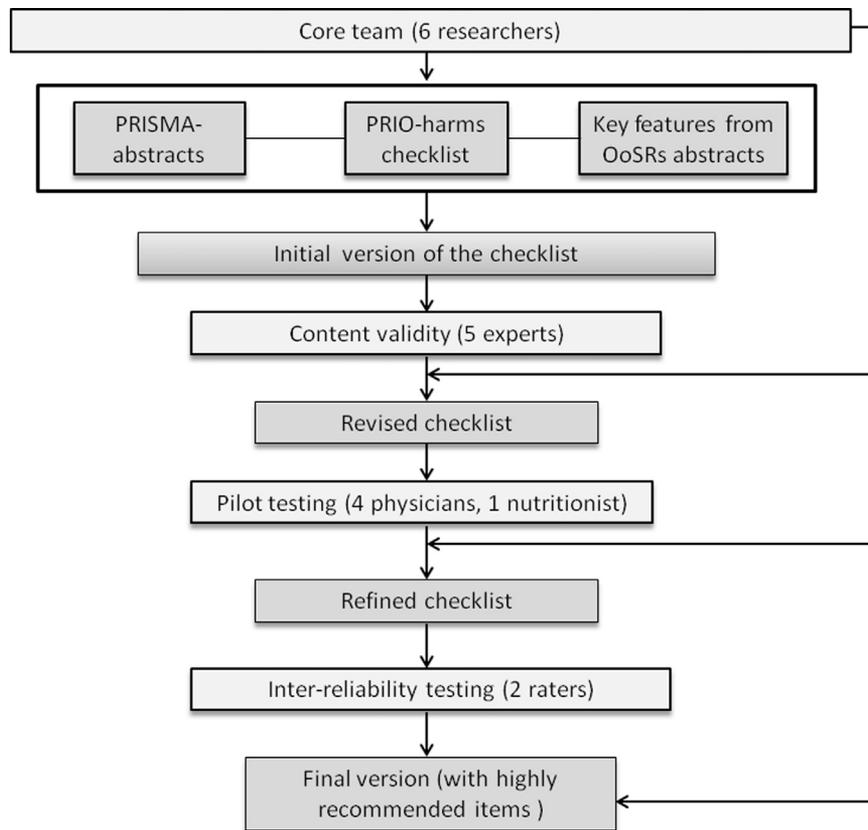
Fig. 1. Flow diagram of the checklist development process. OoSRs, Overview of Systematic Reviews; PRISMA-abstracts, Preferred Reporting Items for Systematic Reviews and Meta-analyses for abstracts; PRIO-harms, Preferred Reporting Items for OoSRs including harms.

them (e.g., noted some of them as highly recommended items). The revised checklist that consisted of 20 items underwent pilot testing and was further refined (e.g., rewording, prioritizing the items) after discussion.

3.2. Structure and content of the refined tool

The refined tool entitled "Preferred Reporting Items for OoSRs abstracts" (PRIO for abstracts) consisted of six sections with 15 topics including 20 items in total (Table 1) presented in this paragraph. Title: title (items 1a and 1b); introduction: background (item 2), objectives (item 3); methods: eligibility criteria (items 4a, 4b, and 4c), information sources (item 5), assessment of methodological quality/risk of bias and quality of evidence (item 6), methods of selection, extraction, and quality assessment (item 7), data synthesis (item 8); results: number/characteristics of studies and participants (items 9a and 9b), presentation of the assessment of methodological quality/risk of bias (item 10), results summary with reference to the quality of the evidence (items 11a and 11b); conclusions: interpretation, strengths, and limitations of evidence (item 12), implications for research (item 13); other: funding (item 14), and registration (item 15). Given that the abstract length in some journals is limited, in Table 1, we have highlighted with boldface the highly recommended abstract items (1a,

3, 4a, 5, 6, 8, 9a, 9b, 10, 11a, 11b, and 12) based on the feedback provided by the expert panel, the comments from the pilot testing, and discussion between all the members of the development phase of the tool.

3.3. Inter-rater reliability analysis

The reliability analysis of the refined version of the checklist showed that the percentage of agreement between the two raters was very good and ranged from 77.5% to 100% (Fig. 2). The mean IRR (Gwet's AC1 statistic) between reviewers for the items in the checklist was 0.87 (95% CI: 0.82, 0.92). The Gwet's AC1 scores were equal or greater than 0.70 for all items (Fig. 3), indicating good agreement and no further changes were needed. The lower Gwet's AC1 scores were mentioned in item 4a (AC1 = 0.70, 95% CI: 0.51, 0.89), item 10 (AC1 = 0.72, 95% CI: 0.50, 0.94), and item 11a (AC1 = 0.72, 95% CI: 0.54, 0.89). Perfect agreement score (AC1 = 1.00, 95% CI: 1.00, 1.00) was achieved in items 2, 4c, 14, and 15 (Appendix 5).

3.4. The final form of the checklist

The final form of the checklist is exactly the same as the refined version of the tool (Table 1; see also Appendix 6 for a downloadable template). We did not make any changes to

Table 1. Checklist of items to include when writing an abstract for overview of systematic reviews of health care interventions

Section/Topic	Item[a]	Checklist item (boldface indicates highly recommended items)
Title		
Title	**1a**[b]	**Specify the study design with the term "overview of systematic reviews" in the title.**
	1b	Mention "efficacy", "effectiveness", "safety" or "harms" related terms, or the specific outcome (e.g., a specific harm) of interest in the title.
Introduction		
Background	2	Introduce briefly the issue under review.
Objectives	**3**	**State the objectives of the OoSRs (include components such as population/condition, interventions, comparators, and outcomes).**
Methods		
Eligibility criteria	**4a**	**Specify the main criteria for selecting systematic reviews to include in the OoSRs (such as the type of study design [or mixed study designs] included in the systematic reviews, the interventions, comparators, or types of participants) and define the main outcomes.**
	4b	Specify report characteristics (such as language restrictions and publication status) used as eligibility criteria for the OoSRs.
	4c	Report how overlapping[c] SRs were handled (e.g., include only the most updated SR, the most methodologically rigorous SR or the SR with larger number of primary studies).
Information sources	**5**	**Report key databases and any other sources (e.g., reference lists, specific journals) searched, and provide search dates. If supplementary searches were conducted to identify additional pertinent primary studies, it should be stated.**
Assessment of methodological quality/risk of bias and quality of evidence	**6**	**State the evaluation of methodological quality/risk of bias in the included reviews (e.g., using AMSTAR, or/and ROBIS tool) and the assessment of quality (or certainty) of the evidence (e.g., using the GRADE approach).**
Methods of selection, extraction, and quality assessment	7	Describe the methods (e.g., independently, in duplicate) used for the systematic review selection, data extraction, and quality assessment.
Data synthesis	**8**	**Specify the method (narrative, meta-analysis, or network meta-analysis [combining direct and indirect comparisons]) used to summarize or synthesize outcome data.**
Results		
Number/characteristics of studies and participants	**9a**[d]	**Present the number, type (SRs or/and MAs) and important characteristics of included reviews. State the degree of overlap[c] between the SRs (e.g., slight, moderate, or high according to corrected covered area [CCA]), if it was estimated.**
	9b[e]	**Present the total number (ideally the number of index publications[f]) and type (e.g., RCTs or nonrandomized studies) of primary studies included in the reviews and the total number of subjects (ideally unique participants from index publications).**
Presentation of the assessment of methodological quality/risk of bias	**10**	**Present a summary of the assessment of methodological quality/risk of bias (e.g., based on AMSTAR or/and ROBIS tool) in the included SRs.**
Results summary with reference to the quality of the evidence	**11a**	**Describe the effects for the main outcomes in words or/and numbers, along with the quality of the evidence supporting the findings:** • **If the effect is presented in words indicate the direction of the effect (e.g., which group is favored; use words such as lower, fewer, reduced; greater, more, increased; did not differ, similar) and the number of reviews that examined the outcome.** • **If the effect is accompanied with numeric results, include the number of primary studies and participants that contribute to this effect. Present each summary measure with the corresponding confidence interval.** **Assess the evidence quality (e.g., GRADE approach) for each main outcome (or present a summary of the quality of evidence, if appropriate).**

Table 1. Continued

Section/Topic	Item[a]	Checklist item (boldface indicates highly recommended items)
	11b[g]	**Present harms of the interventions. If harms did not occur or were poorly reported in the included systematic reviews, it should be stated.**
Conclusions		
Interpretation, strengths and limitations of evidence	**12**	**Provide a general interpretation of the results with reference to the quality of the evidence. Summarize briefly the strengths (such as a large effect) and limitations of the available evidence (e.g., different eligibility criteria between studies, large degree of overlapping among SRs, inadequate number of studies to draw conclusions, sparse and fragmented data on potential harms, and other risk of biases). Possible implications for policy and practice should be stated.**
Implications for research	13	Present important implications for future research.
Other		
Funding	14	Report the primary source of funding for the overview. If there was no funding it should be stated.
Registration	15	If a protocol is registered provide the registration number and registry name.

Abbreviations: OoSRs, overview of systematic reviews; SRs, systematic reviews; MAs, meta-analyses; RCTs, randomized controlled trials.

Modified and extended for Overview of Systematic Reviews abstracts from Beller EM, Glasziou PP, Altman DG, Hopewell S, Bastian H, Chalmers I, et al. PRISMA for Abstracts: reporting systematic reviews in journal and conference abstracts. PLoS Med 2013; 10:e1001419.

[a] Boldface indicates highly recommended items.

[b] If the OoSRs include only Cochrane reviews, the term "systematic" could be replaced with "Cochrane", as these reviews are always systematic.

[c] Overlapping is the situation when primary studies are included in more than one eligible systematic review and may result in double counting of data. A measure of overlap in OoSRs is the corrected covered area (CCA).

[d] Also report the number and study design if additional primary studies were included in the OoSRs.

[e] If additional primary studies (and their participants) were included in the OoSRs, they should be added in the total numbers.

[f] Index publication is the first occurrence of a primary publication in the included reviews (another terminology used is "unique primary studies").

[g] Applicable for OoSRs with health care interventions that contain harms (as primary or secondary) outcomes.

the items after the inter-rater testing because the agreement scores were equal or greater than the predefined cutoff point for inclusion for all the items, indicating good agreement.

We provide a brief explanation and at least one published example of good reporting for each abstract item in Appendix 7. The examples were found in 37 abstracts of a selection of 529 OoSRs of health care interventions that were retrieved by our systematic searches of the literature (Appendix 8). However, this does not imply that the entire abstract in use was well reported.

4. Discussion

In this article, we attempted to introduce a checklist for improving the completeness of reporting in abstracts of overviews of intervention systematic reviews. The development of PRIO for abstracts was undertaken because there is no existing guideline on this topic. It could be considered as a modified and extended version for abstracts of OoSRs derived from the PRISMA for abstracts.

The 250 word limit for abstracts, used by many journals, probably goes back to the days when MEDLINE truncated

the abstracts at this ceiling [24]. However, abstracts are no longer truncated in MEDLINE/PubMed [25]. As a consequence, the restriction of the 250 words has been loosened by the major journals (e.g., the guidelines for systematic reviews usually referred to length of abstracts between 250 and 350 words or more). We agree that journals should set the allowable abstract word count for OoSRs to more than 250 words. Because these articles have a second level of synthesis design (they synthesize SRs), they may require a higher number of words in their abstracts than other type of studies. Such a fact is reflected on the larger number of items recommended for structured abstracts of this kind of publication.

Most journals support structured abstracts and we strongly agree with the use of bold headings in the abstract for reporting OoSRs. This checklist recommends the IM-RAC (Introduction, Methods, Results, and Conclusions) format. However, we acknowledge that journals support their own set of headings for abstract submission, so the overview authors may need to modify the proposed labels according to the journal's instructions.

The sequential order of the abstract items appearing in our checklist is only a suggestion for the overview authors based on the form of PRISMA for abstracts checklist [7]

and the empirical evidence from the abstracts of OoSRs in the health care literature. Given that the maximum number of words allowed by the journals for abstract submission is usually limited, we prioritized the items based on the comments from experts and discussion between all the members of the development phase of the tool. Therefore, we highlighted 12 of the 20 items (1a, 3, 4a, 5, 6, 8, 9a, 9b, 10, 11a, 11b, and 12) with boldface as a minimum set of elements that are highly recommended to be reported in the abstract of OoSRs (Table 1). In addition, authors may combine items from the checklist into one sentence (e.g., 3 and 4a may be combined) to comply with length limitations.

Item 1a requires the elucidation in the title that the reviews included in the overview are SRs as there are many different types of reviews (e.g., literature review, mapping reviews, rapid reviews, scoping reviews) [26]. Systematic reviews use explicit, systematic methods aiming to minimize bias and provide reliable findings from which conclusions can be drawn and decisions can be made [27].

Item 5 states that information should be provided on whether a systematic search was conducted to identify all studies that would meet the eligibility criteria. If a review reports having searched only one database, it loses attributes of a systematic approach [28]. Moreover, supplementary searches for primary studies may be conducted to overcome a deficiency in the identified SRs (e.g., to find eligible primary studies that had not been initially identified by the search process of the SRs [29,30], to update the outdated SRs [31−33], or to search for evidence on an important topic or outcome not investigated in any included SR [33]). The reader of the abstract should be able to assess whether the evidence from the OoSR is up to date, so the date of last search should be also provided along with the databases.

Items 6 and 10 refer to the methodological quality/risk of bias of the included SRs. It is important for the readers to know the methods used and the results of the quality assessment. We included both AMSTAR and ROBIS tools as they can be successfully applied in SRs [31,34,35] and may be considered as complementary instruments [36]. Recently the AMSTAR tool has been updated (AMSTAR 2, now has 16 items in total compared with 11 from the first one) and enables a more detailed assessment of systematic reviews that include randomized or nonrandomized studies of health care interventions, or both [37].

The abstract should include the method used for assessment of quality of the evidence (item 6) and its results (11a). The authors usually use GRADE level of evidence for each outcome. However, there is shortness of guidance on how to apply GRADE within an overview and this approach should be followed with caution [38,39].

The number of the included SRs, the total number of primary studies included in the SRs, and the total number of participants provide a measure of the magnitude of evidence in the overviews of intervention reviews (items 9a and 9b). Although the unit of synthesis for OoSRs is the SR, additional eligible primary studies obtained from the supplementary searches may also be included and they should be reported (see footnote for item 9a) and added in the total number of the primary studies and participants (see footnote item 9b).

Another key methodological challenge in OoSRs is the overlapping between SRs. In this situation, primary studies are included in more than one SR and there is risk of double counting the data [10,38−40]. Two-thirds of meta-analyses of randomized trials published in 2010 had at least one partially or completely overlapping meta-analysis on the same topic [41]. However, only 32 of 60 (53.3%) of the
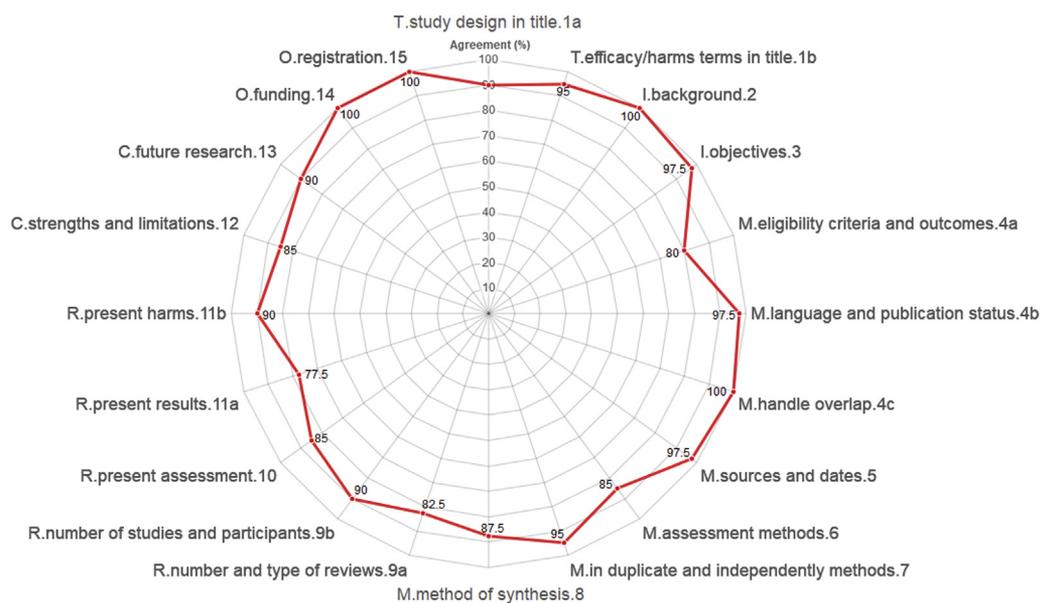

Fig. 2. Radar plot showing the percentage of agreement between the two reviewers for each abstract item. T, Title; I, Introduction; M, Methods; R, Results; C, Conclusions; O, Other.
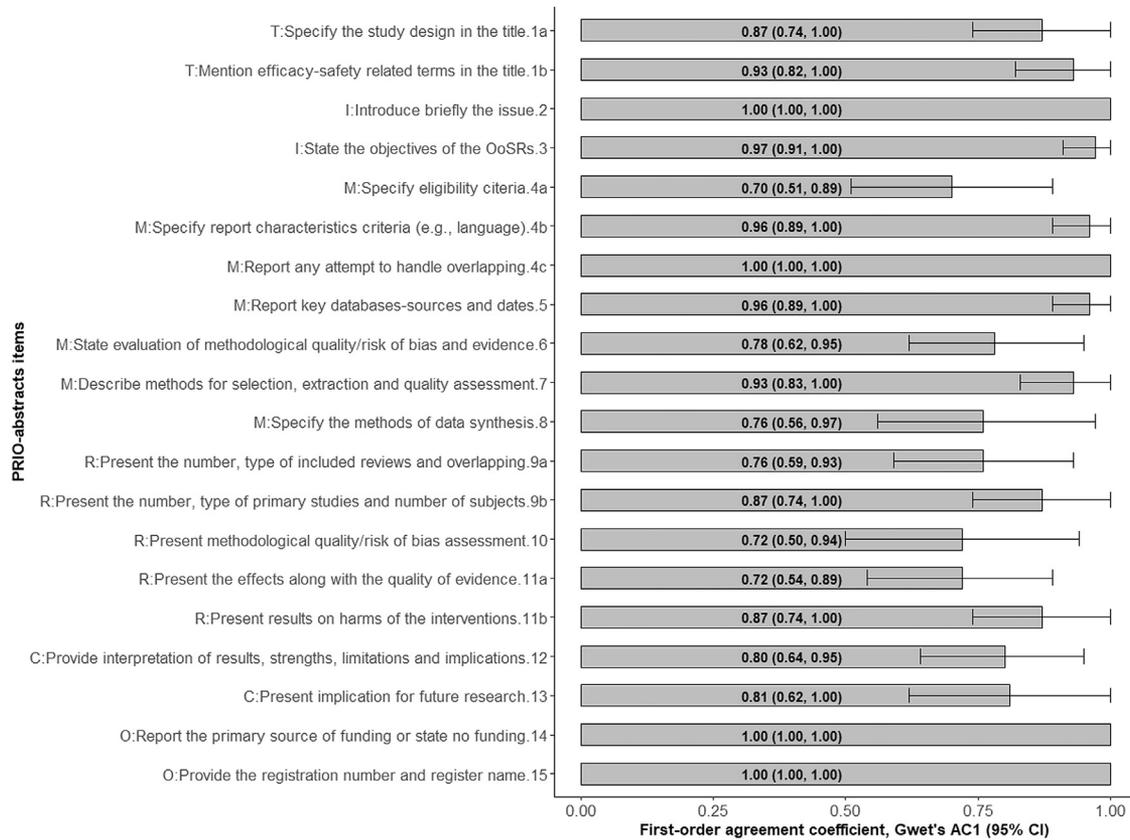
Fig. 3. PRIO-abstracts evaluation of the inter-rater reliability (Gwet's AC1 with 95% confidence interval) between the two reviewers for each abstract item (the abstracts of 40 OoSRs were used for the evaluation). T, Title; I, Introduction; M, Methods; R, Results; C, Conclusions; O, Other; CI, Confidence Interval; OoSRs, Overview of Systematic Reviews; PRIO-abstracts, Preferred Reporting Items for OoSRs abstracts.

OoSRs published between 2009 and 2011 mentioned overlap [10]. The overview authors should discuss about overlapping and provide pertinent information in the abstract (items 4c and 9a). Cooper and Koenka [40] summarized the most common strategies to select between multiple overlapping SRs. They suggested to use the study that (a) provides the most complete description, (b) is the most recent, (c) contains the most evidence, (d) is methodologically the most rigorous, or (e) is published (passed peer review process). The corrected covered area is considered as a valid technique to quantify the degree of overlapping in the OoSRs [10] and could be reported in the abstract.

Item 11b is included as a highly recommended item for abstracts of OoSRs with health care interventions that contain harms as primary or secondary outcomes. This decision came with consensus among the members of the development phase of the tool. The reason is that abstracts published in peer reviewed medical journals with high impact factor often under-report harms outcomes, even when harms are reported in the main body of the article [42]. An "unbiased" abstract should allow transparent and balanced assessment of the benefit-risk ratio of the interventions in the OoSRs.

Protocol registration is another key step to provide reporting completeness and transparency. The access to the study protocol provides readers with a reference to compare against the complete study and examine for reporting biases [4,43]. The abstract should record the repository in which the OoSRs protocol is registered and the registration number (item 15). It is worth mentioning that although Cochrane OoSRs are preceded by a peer-reviewed protocol published in the Cochrane Library, they do not provide this information in the abstract.

This checklist is mainly applicable to abstracts of overviews of intervention (pharmaceutical or nonpharmaceutical) systematic reviews. Authors may need to modify or incorporate additional items when they write abstracts for overviews of diagnostic test accuracy reviews, overviews of reviews of prognostic studies, overview of reviews of etiology studies, overview of qualitative reviews, or mixed method overviews.

Although five experts is an adequate number for content validation [15], the proposed tool may benefit from critical review from more experts and research teams that produce OoSRs. However, the recommended steps for developing a health research reporting guideline were followed as close as possible [44]. We encourage the authors to use this checklist as a guide to write a clear, transparent, and sufficient abstract for their OoSRs. It is also expected to be useful for editors, helpful for reviewers (the degree of

difficulty and the time spent may depend on the degree of experience and familiarity of the reviewer), and it could be adopted by journals that publish OoSRs.

5. Conclusions

The abstract is a short document that is intended to capture the interest of a potential reader of the article and consequently it should be well written. We developed this standardized reporting guideline to assist writing abstracts for overviews of intervention systematic reviews in a transparent and sufficient way. We found very good IRR between reviewers for the items of the checklist and this tool could be introduced and adopted by journals that publish OoSRs.

Supplementary data

Supplementary data related to this article can be found at https://doi.org/10.1016/j.jclinepi.2018.10.005.

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