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Abstracts reporting of randomized controlled trials in ten highest-ranking nursing journals: improvement in the quality since CONSORT extension for abstracts

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Abstract

Background: When evaluating randomized controlled trials(RCTs), nurses usually refer to the abstracts to make an initial assessment of the results and to determine whether a full-text review is required. This study aims to determine whether the publication of Consolidated Standards of Reporting Trials (CONSORT) for abstracts resulted in an improvement in the abstracts report of nursing RCTs.

Methods: This research was a cross-sectional study. Web of Science was searched. 200 RCTs were randomly selected from ten high-impact nursing journals. CONSORT-A checklist was used to assess abstracts. Total score on checklists, comparison on total scores between two periods, and effect factors were analyzed.

Results: Mean overall adherence across all abstracts was 8.85 ± 2.18 which significantly improved with the time span. The most poorly reported items were ‘harms’, ‘outcomes in method’, and ‘method of blinding’ which appeared in 0, 8.5% and 16.5% of abstracts, respectively. Recent year of publication($P=0.014$), Journal impact factor ($P=0.000$), multiple center trial ($P=0.000$), and structured abstract ($P=0.008$) were associated significantly with a high reporting quality.

Conclusions: Although not defined all of abstracts in nursing area, our sample reflect the general trend that there was limited adherence to the CONSORT-A among abstracts in nursing literature. It is necessary to promote and actively apply the CONSORT-A guideline.

Keywords: Abstracts; randomized controlled trials; CONSORT for abstracts

Background

Randomized controlled trials (RCTs) are considered as the best source of evidence providing the most reliable evidence for clinical practice and decision-making (Putman et al., 2020). Therefore, accurate and complete reporting of RCTs results is essential for the effective utilization of high-quality evidence (Butcher et al., 2020). This has led to the development of standardized reporting guidelines for RCTs, such as the Consolidated Standards of Reporting Trials (CONSORT) which was established in 1996, revised in 2001 (Moher et al., 2001), and last updated in 2010 (Schulz et al., 2010).

With the publication of a large volumes of RCTs, most readers initially evaluate the articles by reading abstracts' content to understand how a clinical trial was conducted, so as to determine whether or not to conduct a more in-depth full-text analysis (Butcher et al., 2020). Meanwhile, due to limited access to many full-text articles, many health professionals tend to rely on information on abstracts to make health care decisions (Gallo et al., 2020). Therefore, an accurate summary of the contents of a study is essential for the abstract in order to permits the reader to get a good synopsis of the study. However, there are considerable evidences that the reporting quality of RCT abstracts is suboptimal (De Angelis et al., 2004). In response to these issues, an extension to the CONSORT statement was published in 2008 (Hopewell et al., 2008) which provided a list of basic items that should be reported in the RCT abstracts. With the publication of CONSORT extension for abstract reporting (CONSORT-A), it was endorsed by the World Association of Medical Editors, the

International Committee of Medical Journal Editors, and the Council of Science Editors (Chhapola et al., 2018). Studies have been conducted based on CONSORT-A to evaluate the quality of abstract reporting in different areas and certain specialties (Germini et al., 2019; Faggion & Giannakopoulos, 2012; Chow et al., 2018; Fang et al., 2020; Gallo et al., 2020). However, these studies indicated that the reporting quality of RCT abstracts are consistently suboptimal.

With the number of RCTs published in nursing journals increasing dramatically, one question that has not been fully answered is whether the qualitative growth of research been the same as its quantitative growth? Systematic reviews determined that the quality of reporting RCTs in nursing literature required improvement (Jull & Aye, 2015; Smith et al., 2008). There is no doubt that standard research and reporting following guidelines are necessary to improve the quality of the papers published by the nursing scholars. The selected nursing journals endorsed the CONSORT guidelines, however, the CONSORT extension for abstracts is not explicitly endorsed within the ‘Instructions for Authors’ section. Currently, there is only one study evaluated the quality of abstract reports of RCTs published between 1984 and 2010 in cancer care (Guo & Iribarren, 2014). With time span, the quality of updated RCT abstracts in the nursing field has not been assessed. It is not clear how often adherence to CONSORT-A guidelines occurs among nursing literature. As a practice-oriented discipline, adherence to this statement is particularly important in the field of nursing. We therefore, in the present study, using RCTs abstracts of the periods before and after the publication of CONSORT-A, aim to evaluate the adherence to the

CONSORT-A statement's recommendations on minimum abstract information published in ten high-impact nursing journals, and to determine the factors associated with better reporting quality.

Method

Study design

This research was a cross-sectional, methodological study that analyzed data from published RCTs in nursing journals.

Data source and search strategy

We selected ten high-impact nursing journals based on impact factor as per the Journal Citation Report 2018 published by Thomson Reuters: *Journal of Cardiovascular Nursing(JCN)*, *International Journal of Nursing Studies(IJNS)*, *European Journal of Cardiovascular Nursing(EJCN)*, *Journal of Nursing Scholarship(JNS)*, *Nurse Education Today(NET)*, *Birth-Issues in Perinatal Care(BIPC)*, *Women and Birth(WB)*, *Nursing Outlook(NO)*, *European Journal of Cancer Care(EJCC)*, *Journal of family nursing(JFN)*.

On February 4, 2021, we searched Web of Science to identify all RCTs published in these journals from inception to 31st-December 2020. A combination of keywords and index terms was used after being discussed with expertise in literature search. We

did not search the grey literature and no limitations were made on the language. The full search strategy was showed in S1.

Eligible criteria

RCTs whose primary purpose was to ascertain the effectiveness of nursing interventions were included. We defined ‘nursing intervention’ as patient care activities performed by registered nurses focused on improving health. For inclusion, the nursing interventions had to have been administered without other interventions. We placed no limitations on the types of intervention, study population, or clinical setting. We included RCTs in which the allocation of participants to interventions was described by the words random, randomly allocated, randomized, or randomization. . Exclusion criteria: animal experiment; RCTs that did not have an abstract; observational studies; economic analyses on RCTs; quasi-randomized trials; cluster randomized trials; diagnostic or screening tests; subgroup or secondary analyses of previously reported RCTs; editorials, letters or news reports. We did not consider conference abstract because such type of publications are generally not peer reviewed. The retrieved studies were exported into EndNote X5 software and duplicates were automatically removed. Study selection was conducted independently by two researchers (JZ and YY). We first reviewed the titles and abstracts of each citation and decided to regard its appropriateness for inclusion. In case of doubt, we

downloaded full texts to judge whether an article was indeed an RCT. Any disagreement was solved by consensus.

Sample size calculation and study selection

The primary objective of this study is to compare the mean number of reported items in prepublication versus postpublication of the CONSORT extension for abstracts based on the 17 items of CONSORT-A. According to the so-called "rough rule of thumb" advocated by Kendall, the number of samples is at least 5-10 times the number of variables (Gallo et al., 2020). In this study, we have 17 variables of CONSORT-A items and 7 for trial characteristics, therefore we calculate the number of studies required as $24 \times (5-10) = 125-240$. Finally, 200 studies were randomly selected for inclusion.

We numbered the final included articles through random computer-generated sequences and randomly selected 200 articles for further analyses.

Data extraction

We designed a data extraction table in a Microsoft Excel spreadsheet. We piloted the spreadsheet with five abstracts, and revisions were made before continuing scoring. The data extraction form include: 1) Publication characteristics: year of publication, impact factor (IF) of the journal (<2, 2-3, and >3), number of authors (1,2-3,4-6,> or equal to 7), center (single or multicenter), and abstract format (structured or unstructured). 2) Abstract reporting. The reporting of abstracts was assessed using the

CONSORT-A checklist, which includes items to each section of the abstract, including “title”, “authors”, “trial design”, “methods”, “results”, “conclusion” and “other information” with totally 17 items. Each checklist item was evaluated to analyze whether it was adequately reported, not reported, or unclear in abstract. The item was scored as “1” if it was well reported or “0” if it was not clearly reported or not stated. Then, the quality score of the abstract ranges from 0 to 17 and an abstract with higher score was regarded as better reporting. Two researchers (YY and YZ) independently extracted the data and assessed the quality of the abstracts. Any disagreement was solved by consensus after the assessment.

Data analysis

Descriptive statistics were used to summarize the basic characteristics. In detail, we used the frequencies and percentages to describe adequately reporting items of the checklist. To compare the overall adherence to CONSORT-A checklist over time, we divided time into two periods: Before CONSORT-A: before 2009; after CONSORT-A: 2009-2019. Pearson chi-square analyses were used to test the any difference before and after CONSORT in reporting of each item. We used the total mean score to reflect the quality of the abstract reporting on a scale of 17. One-way ANOVA was used to test statistically significant between general characteristics and the mean total quality score. In order to investigate potential factors related to the quality of the abstract reporting, linear regression analysis was performed. Data

analyses were performed by SPSS statistical software (Version 21.0) and $P < 0.05$ was treated as statistical significance.

Results

Our search yielded 1996 records, among which 906 were included for final analysis.

A flow diagram of the literature search and identification of nursing RCT abstracts are depicted in Fig. 1

Characteristics of included abstracts

The characteristics of included abstracts are shown in Table 1. Of the 200 abstracts, 24% were published before 2009 (pre-CONSORT) and 76% after 2009 (post-CONSORT). Nearly half (45%) were published in IJNS which has the highest IF in nursing field. 43.5% were conducted by 4-6 authors, with 4% have only one. 154 (77%) studies were conducted in multicenter, and 163 (81.5%) reported structured abstracts.

Reporting of trial methodology

Table 2 showed that most samples adequately reported eligibility criteria for participants and the settings (58.3% before CONSORT and 67.8% after CONSORT), while interventions and objective were sufficiently reported in both groups. However, primary outcomes were not clearly defined in two groups (4.2% before CONSORT

and 9.9% after CONSORT-A). The way how participants allocated to interventions were reported significantly more frequently in after CONSORT-A samples ($P < 0.05$). Less samples in both groups provided details of blinding. Slight improvement was found in the after CONSORT-A sample, but the values were suboptimal.

Reporting of trial results and conclusions

The reporting of trial results was similar in two groups, including most (75% before and 79.6% after) details of the number of participants randomized to each group, the number of participants analyzed in each group (83.3% and 83.6%), the primary outcome results for each group (91.7% before and 94.1% after). However, no abstract reported the adverse events or side effects in both groups. The trial conclusions were adequately reported in both samples (91.7% and 91.4%). Trial registration was reported more often in the post CONSORT-A group (25% and 49.3%, respectively) (Table 2).

Overall quality score

The mean OQS (8.85 ± 2.18) on a 17 scale was significantly improved within the time span. With the pre-CONSORT abstracts was 8.29 ± 2.92 , whereas it was 9.42 ± 3.12 for the post (Table 2).

Reporting of general items

Table 2 shows the adherence of nursing RCT abstracts to the CONSORT-A checklist. Significantly more studies were identified in the title as “randomized” during the post-CONSORT-A period.

The majority items (64.7%) were scored above 50%. Only 11 trials had a total adherence score between 70 and 88%, and not a single trial had total adherence to CONSORT-A that was above 90% (Figure 2).

Factors of effecting overall reporting reporting score

As shown in Table 3, the journal “IJNS” which has the highest IF in the analyzed period has the highest adherence score of 10.47 ± 2.789 . The mean OQS improved with time span, with more authors, for multiple center studies, and structured abstracts. Table 4 showed that a recent year of publication ($P= 0.014$), Journal impact factor ($P=0.000$), multiple center ($P=0.000$), and structured abstract ($P=0.008$) were associated with a significant difference in reporting quality.

Discussion

Our study will provide important baseline information for the quality of abstract reports in nursing area. We found a significant improvement in the reports quality of nursing RCT abstracts with the release of the CONSORT-A guidelines. The results are consistent with findings from high-profile journals in other areas (Can et al., 2011; Mbuagbaw et al., 2014). However, despite the improvements, overall result suggested

that reporting quality of abstracts of RCTs in nursing remained poorly compliant with CONSORT-A. Adequate reporting seems to be neglected in other areas as well (Ghimirea et al., 2014; Isiguzo et al., 2018). Since the quality of abstract is considered to be more likely to influence clinical decision-making (Mbuagbaw et al., 2014), more work needs to be done in nursing literature to ensure a complete, accurate and transparent abstracts report.

Of the 17 original items, the neglect of two important items (randomized methods, and blinding details) is particularly concerning, as these are important information to ensure that the results are authentic (Mbuagbaw et al., 2014). Most of the abstracts mentioned random assignment but failed to report methods of sequence generation. In addition, the authors tend to write “single” or “double” blind rather than specifying exactly who were unaware of treatment identities. In terms of changes over time, for item “randomization”, the reporting quality improved significantly in the post-CONSORT era which suggests that more attention has been paid to the randomization methods reports in abstracts. Overall, however, less than a quarter of the included abstracts adequately reported randomization methods. Reporting deficiencies in these items are also found in other areas (Seta et al., 2020; Stubenrouch et al., 2020). Since a lack of description of important methodological items could cause bias and affects the reliability and validity of RCT abstracts (Seta et al., 2020), we encourage trialists and journal editors to work towards solutions to mitigate these issue.

A structured abstract improves readability and facilitates a simple assessment of the information reported in the abstract. Unfortunately, even after publication of CONSORT - A, 37 of the 200 RCTs did not use a structured format of abstracts, which may be affected by journal's requirements. Of the ten journals included, one (JFN) required unstructured abstracts in 'instruction for authors' while others required structured. However, the existence of this structure does not seem to provide sufficient information. Our results are consistent with others (Fang et al., 2020; Bero et al., 1998) which appears a need to use specific strategies to implement research-based recommendations to ensure a change in approach. Study concluded that journals' active implementation of the CONSORT - A guidelines is associated with improved completeness of reporting of RCTs (Speich et al., 2020). Currently, of the ten nursing journals, six (*EJCN*, *NET*, *WB*, *NO*, *EJCC*, *JFN*) endorsed CONSORT guidelines for full text reporting, none of them endorse the CONSORT-A. Moreover, all journals have strict abstract words count limit. *IJNS* and *JNS* 400 words, *NET* 300 words, *EJCN* and *BIPC* 250, *EJCC* 200, whereas *JCN*, *NO* and *JFN* 150 words. The explanation and elaboration of the CONSORT-A considered that items in the checklist could be incorporated within a limit of 250–300 words (Hopewell et al., 2008). Also, study pointed out that less strict word limits would improve compliance with CONSORT-A (Speich et al., 2020). If the word limit for abstracts is low, contents that can be described also become limited. Thus, the results obtained in this study might have been greatly affected by the submission guidelines of each journal. We suggest that first of all, editors should assess their own journal's processes for compliance

with CONSORT-A including considering whether their abstract structures and word limits hinder possibility of compliance; Subsequently, journals should consider adopting the CONSORT-A as a prerequisite of submission. This would help the author to adopt the guideline to make the abstract more reasonable and readable. Similarly, for reviewers, the completeness and efficiency of abstracts could be improved if the CONSORT-A was better disseminated (Hopewell et al., 2008).

According to CONSORT -A, advent events is an important piece of information for the reader and should be reported in abstracts (Stubenrouch et al., 2020). Our study found no abstracts report this information. This is not surprising, since nursing interventions show fewer adverse effects. This observation is consistent with findings from other studies (Haidich et al., 2011; de Vries & van Roon, 2010). This important reporting gap needs to be corrected if we wish to use quantitative and objective evidence to demonstrate the effectiveness and adverse effects of specific interventions in nursing decision-making. All adverse events should be actively monitored, evaluated, and then described in the abstracts in accordance with the recommendations of the CONSORT-A.

A larger proportion of abstracts in this analysis did not report primary outcome in methods section. Without this information, the reader is unable to assess whether the outcomes of the study are selectively reported based on the significance and direction of the results which may distort clinical findings and limit outcomes (Rankin et al., 2017). One of the recommended safeguards against outcome reporting bias and spin by securing the transparency of reporting is clinical trial registration (Won et al.,

2019). Those reading the final trial report can then go back to the original trial registration to check whether what was highlighted as the primary outcome measure in the published report corresponded to that in the original registration. In 2004, the International Committee of Medical Journal Editors initiated a policy requiring investigators to register their trials into a clinical trial registry before participant enrollment begins as a condition of publication in one of their journals ([DeAngelis et al., 2004](#)). The World Health Organization hosting an International Clinical Trial Registry Platform of approved trial registries (<http://www.who.int/ictrp/en/>, accessed 23 November 2011) . Despite requirements, there have been concerns regarding inadequately registered studies (Harriman & Patel, 2016). Our study showed, although less registered, after the publication of the CONSORT-A, trial registration was reported more often in nursing literature. This finding would be in agreement with several reporting assessments based on CONSORT-A (Ghimirea et al., 2014), this might indicate that there is even larger room for improvement in adhering to CONSORT-A in nursing abstracts.

Similar to the study by Mbuagbaw et al., multicenter studies were found to have a better abstract reporting quality (Mbuagbaw et al., 2014). The exact reasons behind this phenomenon are unknown, however, it can be assumed that a larger multicenter study involving more researchers could lead to better abstract reports. Since the results obtained might have been greatly affected by the submission guidelines of each journal. There is a need for more aggressive enforcement of CONSORT - A by journals by strengthening or altering the peer-review process, and a need for authors

to realize the full potential and importance of adhering to these guidelines to improve the overall quality of RCT abstract.

This study has several limitations. First, our study is not fully representative of all published nursing RCT abstracts. However, our results may sufficiently reflect the overall trends of the abstract reports in nursing area. Second, our study analyzed the adequacy of reports based on the CONSORT-A checklist, without considering whether the content of abstract was accurately reflected in the full text. This was beyond the scope of our study. Thus, further studies are needed to assess the accuracy of the full-text reports.

Conclusion

Our findings show that the reporting quality of nursing RCT abstracts has improved significantly in the post CONSORT period and is associated with high-IF journals, latest published years, structured abstract and multi-center. However, this study demonstrated that the quality of abstracts reporting in nursing literature remains unsatisfactory after the publication of the CONSORT-A. As incomplete information makes it difficult to trust the findings resulting in suboptimal use of these RCTs.

Based on our findings, nurse professionals and policymakers should be cautious in interpreting the information reported in nursing RCT abstracts. In addition, additional efforts from both researchers and editors in the field of nursing seem to be necessary for better adherence to the CONSORT-A guidelines and provide informative abstracts

for readers.

Abbreviations

RCT: Randomized Controlled Trial

CONSORT-A: the Consolidated Standards of Reporting Trials

JCN: Journal of Cardiovascular Nursing

IJNS: International Journal of Nursing Studies

EJCN: European Journal of Cardiovascular Nursing

JNS: Journal of Nursing Scholarship

NET: Nurse Education Today

BIPC: Birth-Issues in Perinatal Care

WB: Women and Birth

NO: Nursing Outlook

EJCC: European Journal of Cancer Care

JFN: Journal of family nursing

Declarations

-Ethics approval and consent to participate

Ethical approval and informed consent were not applicable for this study as this study is a cross-sectional survey based on published RCTs.

-Consent for publication

Not applicable.

-Availability of data and material

The datasets used and analyzed during the current study are available from the corresponding author on reasonable request.

-Competing interests

The authors declare that they have no competing interests.

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-Authors' contributions

JZ and WS designed the study. WS, YZ and YY performed data collection. WS led data analysis and wrote the first draft. JZ and XZ commented on all drafts. All authors contributed to the interpretation of results and commented on drafts prior to publication. All authors read and approved the final manuscript.

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Table 1. Trial characteristics of included abstracts ^a. (N=200)

Characteristics	Before CONSORT-A (N=48), n(%)	After CONSORT-A (N=152), n(%)	Overall, n(%)
Journal			
Journal of cardiovascular nursing	3(6.25)	13(8.55)	16(8.0)
International journal of nursing studies	13(27.08)	77(50.66)	90(45.0)
European Journal of Cardiovascular Nursing	3(6.25)	20(13.16)	23(11.5)
Journal of Nursing Scholarship	2(4.17)	5(3.29)	7(3.5)
Nurse Education Today	2(4.17)	16(10.53)	18(9.0)
Birth-Issues in Perinatal Care	21(43.75)	4(2.63)	25(12.5)
Women and Birth	0	7(4.61)	7(3.5)
Nursing Outlook	0	1(0.66)	1(0.5)
European Journal of Cancer Care	4(8.33)	6(3.95)	10(5.0)
Journal of family nursing	0	3(1.97)	3(1.5)
Journal impact factor			
Less than 2	0	7(4.61)	7(3.5)
2-3	35(72.92)	68(44.74)	103(51.5)
More than 3	13(27.08)	77(50.66)	90(45)
Number of authors (n)			
1	4(8.33)	44(2.63)	8(4.0)
2-3	18(37.5)	43(28.29)	61(30.5)
4-6	21(43.75)	66(43.42)	87(43.5)
> or equal to 7	5(10.42)	39(25.66)	44(22.0)
Centers			
Single center	12(25)	34(22.37)	46(23)
Multicenter	36(75)	118(77.63)	154(77)
Abstract			
Structured	33(68.75)	130(85.53)	163(81.5)
Unstructured	15(31.25)	22(14.47)	37(18.5)

Abbreviations: CONSORT-A, Consolidated Standards of Reporting for Abstract Before. CONSORT-A: before 2009; after CONSORT-A: 2009-2019.

^aThe number and overall frequency (%).

Table 2. Quality assessment of nursing RCT abstracts using CONSORT -A.

Items	Before CONSORT-A (N=48), n(%)	After CONSORT-A (N=152), n(%)	Overall (N=), n(%)
1. Title	28(58.3)	114(75)*	142(68.5)
2. Authors	46(95.8)	132(86.8)	178(89.0)
3. Trial design	40(83.3)	107(70.4)*	147(73.5)
Methods			
4. Participants	28(58.3)	103(67.8)	130(65)
5. Interventions	39(81.2)	125(82.2)	164(65.5)
6. Objective	35(72.9)	117(76.9)	153(76.0)
7. Outcome ^a	2(4.2)	15(9.9)	17(8.5)
8. Randomization	6(12.5)	46(30.3)*	52(26.0)
9. Blinding (masking)	6(12.5)	27(17.8)	33(16.5)
Results			
10. Numbers	36(75)	121(79.6)	157(78.5)
11. Recruitment	5(10.4)	28(18.4)	33(16.5)
12. Numbers analyzed	40(83.3)	127(83.6)	167(83.5)
13. Outcome ^b	44(91.7)	143(94.1)	187(94.5)
14. Harms	0	0	0
15. Conclusions	44(91.7)	139(91.4)	183(91.5)
16. Trial registration	12(25)	75(49.3)*	87(43.5)
17. Funding	25(52.1)	85(55.9)	106(53.0)
Mean overall score^c	8.29(2.92)	9.48(3.12)*	95%CI(2.19,-.18)

*P<0.05. ^a Outcome reported in methods section. ^b Outcome reported in results section. C Independent sample t-test.

Table 3. The overall adherence score among different characteristics.

Characteristics	$\bar{x} \pm SD$	F/t	P
Journal			
Journal of cardiovascular nursing	8.50±3.498	3.498 ^a	0.001
International journal of nursing studies	10.47±2.789		
European Journal of Cardiovascular	8.09±3.342		
Journal of Nursing Scholarship	8.71±2.138		
Nurse Education Today	8.11±3.085		
Birth-Issues in Perinatal Care	8.12±2.920		
Women and Birth	7.71±2.812		
Nursing Outlook	9.00±2.982		
European Journal of Cancer Care	7.70±3.713		
Journal of family nursing	8.33±3.055		
Journal impact factor			
Less than 2	7.71±2.812*	15.833 ^a	0.000
2-3	8.18±2.996**		
More than 3	10.47±2.789*/**		
Number of authors (n)			
1	8.75±2.659	3.228 ^a	0.024
2-3	8.30±3.514*/**		
4-6	9.41±3.067*		
> or equal to 7	10.09±2.321**		
Centers			
Single center	2.491±0.201	6.326 ^b	0.000
Multicenter	3.798±0.560		
Abstract			
Structured	3.271±0.538	3.895 ^b	0.000
Unstructured	2.939±0.230		
Year of publication			
Before 2009	8.29±2.917	2.336 ^b	0.020
2009-2018	9.48±3.120		

*/**. LSD-tests, the mean difference is significant at the 0.05 level between two groups.

^a equal to F value; ^b equal to t value.**Table 4.** Linear regression analysis of factors effect the overall adherence score

Characteristics	B	standard error	t	Sig.	95% CI
Journal	-.128	.109	-1.174	.042	-4.722,.087
Journal impact factor	1.727	.437	3.953	.000	-.343,2.589
Disease (common ICD-10)	-.030	.060	-.498	.619	.865,.089
Year of publication	.637	.457	1.396	.014	-.349,1.538
Authors (n)	.108	.247	.439	.661	-.263,.595
Centers	3.114	.468	6.650	.000	-.378,4.038
Abstract	-1.392	.522	-2.664	.008	-2.423,-.361

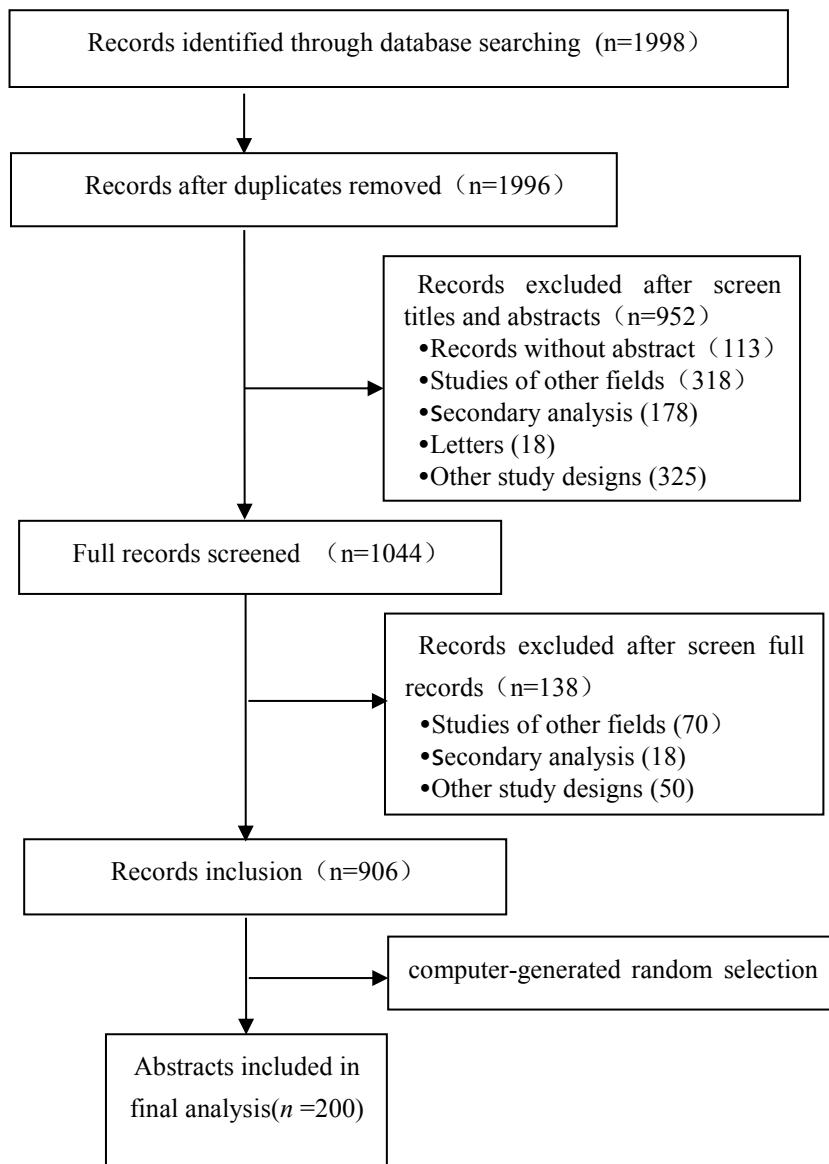


Figure 1 Flow chart for studies selection.

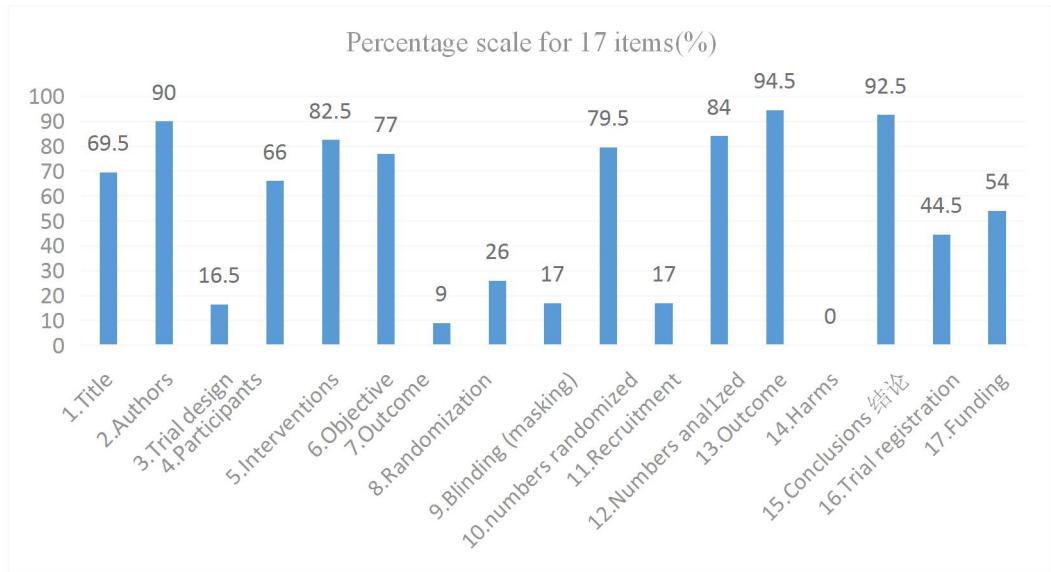


Figure 2.Total adherence to the CONSORT for abstracts

Figures

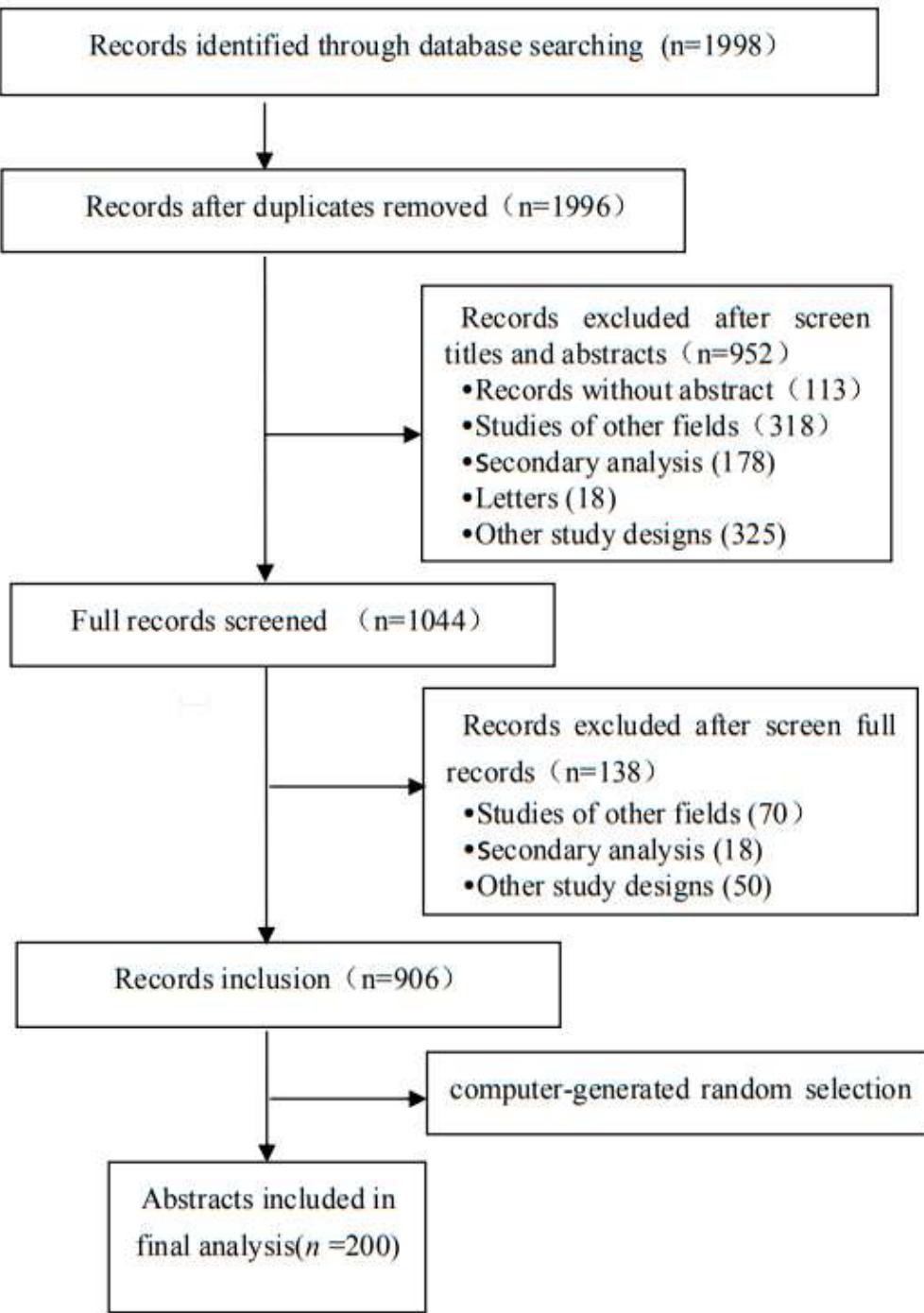


Figure 1

Flow chart for studies selection.

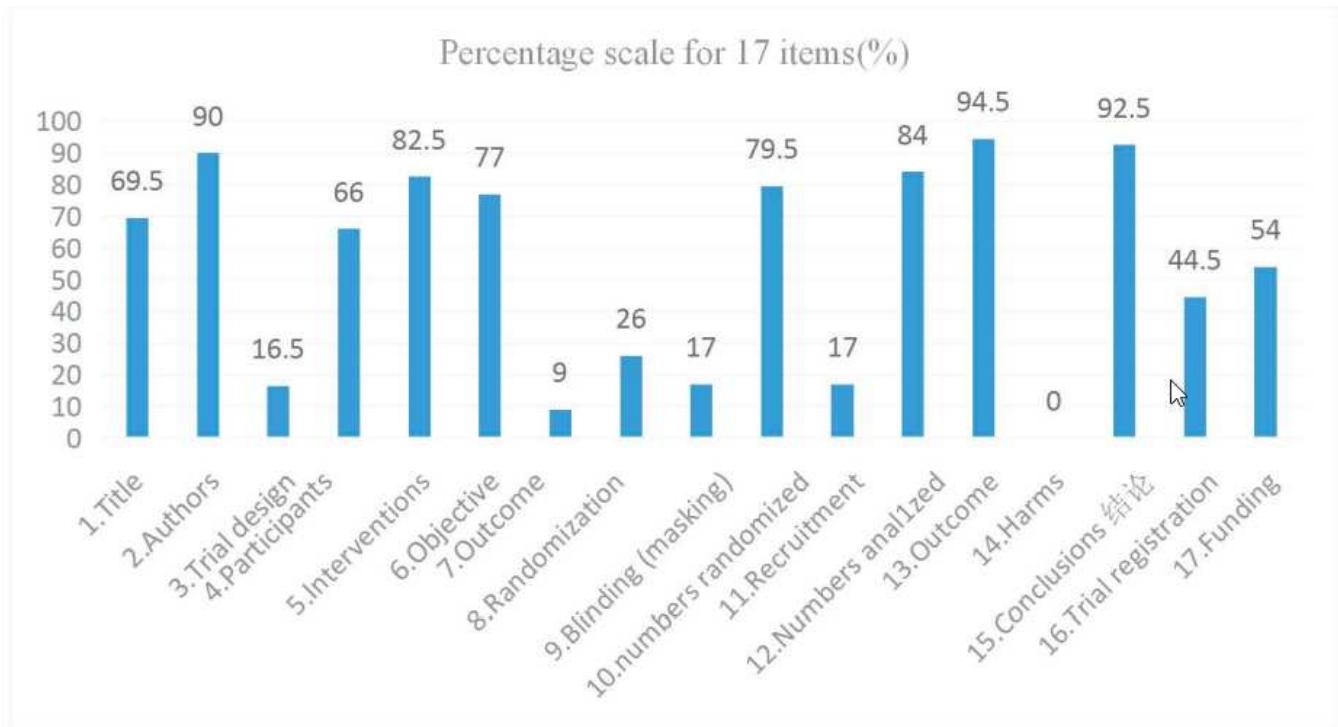


Figure 2

Total adherence to the CONSORT for abstracts.

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