Schwerpunkt

Reporting quality of conference abstracts on randomised controlled trials in gerontology and geriatrics: a cross-sectional investigation

Eva Mann1,3, Gabriele Meyer2,∗,3

1 General Practice and Institute for Health Services Research, Rankweil, Austria
2 Faculty of Medicine, Institute of Nursing Science, Witten/Herdecke University, Witten, Germany

Summary

Without transparent reporting of how a randomised controlled trial was designed and conducted and of the methods used, its internal validity cannot be assessed by the reader. A congress abstract is often the only source providing information about a trial. In January 2008, an extended CONSORT statement on abstract reporting was published. Its impact has yet to be evaluated. Using a slightly modified CONSORT checklist comprising 17 items, we thus investigated the reporting quality of randomised controlled trials published in the book of abstracts presented at the World Congress of Geriatrics and Gerontology in Paris in July 2009. A total of n = 4,416 abstracts was screened for inclusion; n = 129 met the inclusion criteria. The overall quality of the abstracts was remarkably poor. The primary outcome was mentioned in 34/129 abstracts (26%), none of the abstracts reported on the procedure of random allocation of participants or clusters, 21/129 abstracts (16%) reported some kind of blinding, and the attrition rate was mentioned in only 12/129 abstracts (9%). The majority of abstracts fulfilled two items: description of intended intervention for each group (102/129; 79%) and general interpretation of results (107/129; 83%). Trial status was reported in all abstracts. Both journal editors and committees organising congresses are requested to define the use of the CONSORT statement as a prerequisite in their guidelines for authors and to instruct reviewers to conduct compliance checks. Medical associations should finally endorse the indispensability of the CONSORT statement and publish it in their journals. Otherwise the intended benefits cannot be fully generated.

Key words: abstracting and indexing as topic, congresses as topic, publishing standards, randomised controlled trials as topic, writing standards

QUALITÄT DER BERICHTERSTATTUNG IN KONGRESSABSTRACTS ZU RANDOMISIERT-KONTROLLIERTEN STUDIEN IN GERONTOLOGIE UND GERIATRIE: EINE QUERSCHNITTUNTERSUCHUNG

Zusammenfassung

Introduction

It is essential that randomised-controlled trials (RCTs) should be written transparently and in sufficient detail in order to allow critical appraisal of their internal validity and applicability. The abstract is often the only source of information about the results of a RCT at first. Reviewers who systematically search through conference abstract books need a minimum of information in order to assess the eligibility of a study for inclusion in the review. Several studies have analysed the quality of conference abstract reporting on RCTs [1–4] and have indicated major deficits concerning the reporting of methods and results. Thus, relying on information provided in an abstract might lead to misinterpretation and false conclusions. In January 2008, an extended CONSORT statement was published, aimed at optimising the quality of journal and conference abstracts [5]. This statement had already been available for researchers who submitted their abstract to the 19th World Congress of the International Association of Gerontology and Geriatrics held in Paris in July 2009. Deadline for abstract submission was January 31, 2009. Therefore, we aimed to assess the transparency of reporting of abstracts accepted for conference presentation. We assumed that the quality might have been improved when compared with the extremely low quality of abstracts found by former studies [1–3].

Methods and material

Design

We conducted a cross-sectional investigation of abstracts published in the abstract book of the World Congress of Gerontology and Geriatrics (July 2009, Paris) including all abstracts reporting a RCT, irrespective of poster or oral presentation [6].

Inclusion and exclusion criteria

We included abstracts of individual or Cluster RCTs reporting on preventive, therapeutic or diagnostic interventions. All other study designs, animal studies, and cost-effectiveness studies based on RCTs were excluded.

Assessment and data handling

For first screening of the electronic version of the abstract book the following search terms for a randomised trial were used: “RCT, random, randomly, randomised, cluster randomised”. Two independent researchers (EM, GM) checked the selection of abstracts and excluded all abstracts which did not meet the inclusion criteria. For an independent review a 17-item checklist was used, based on the extended CONSORT statement for reporting RCTs in journal and conference abstracts [5]. Disagreement was solved by discussion. Table 1 displays the items assessed. Frequencies were calculated, no further statistical analyses were performed.

Results

Fig. 1 displays the selection process of abstracts up to the finally included sample. A total of n = 129 abstracts (n = 33 oral and n = 96 poster presentations) were included in the analysis. Oral presentations were made by primary authors from 13 countries, whereas poster presentations were made by authors from 22 countries. Thirty-two abstracts dealt with dementia, n = 16 with falls and fractures, n = 15 with psychological aspects of aging and cognitive training, n = 12 with exercise, and eight with nutrition or supplements. The other abstracts (n = 46) were on miscellaneous topics.

Inter-rater agreement between the reviewers (EM, GM) was good. There was minor disagreement regarding item no. 15 and substantial disagreement (>30%) about two items (no. 2 and no. 5). Only two items were fulfilled by the majority of abstracts: Description of intended intervention for each group (102/129, 79.1%, item no. 4) and general interpretation of the results (107/129, 82.9%, item no. 15). The trial status (item no. 11) was reported in all abstracts. The primary outcome was stated in 34/129 abstracts (26.4%, item no. 6), none of the abstracts reported on the procedure of random allocation of participants or clusters (item no. 7), 21/129 abstracts (16.3%) reported some kind of blinding (item no. 8), the attrition rate was mentioned in 12/129 abstracts (9.3%, item no. 10).
Table 1. Transparency of reporting in 129 conference abstracts.

<table>
<thead>
<tr>
<th>Item</th>
<th>Number (percentage)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Identification of the study as randomised</td>
<td>34 (26.4)</td>
</tr>
<tr>
<td>2. Eligibility criteria of participants</td>
<td>16 (12.4)</td>
</tr>
<tr>
<td>3. Eligibility criteria of setting</td>
<td>3 (2.3)</td>
</tr>
<tr>
<td>4. Intended intervention for each group</td>
<td>102 (79.1)</td>
</tr>
<tr>
<td>5. Specific hypothesis on the objective (clinical or statistical)</td>
<td>19 (14.7)</td>
</tr>
<tr>
<td>6. Clearly defined primary outcome</td>
<td>34 (26.4)</td>
</tr>
<tr>
<td>7. Procedure of random allocation of participants or clusters</td>
<td>0</td>
</tr>
<tr>
<td>8. Blinding (either participants, carers, assessors, or statistician)</td>
<td>21 (16.3)</td>
</tr>
<tr>
<td>9. Number of participants randomised to each group</td>
<td>46 (35.7)</td>
</tr>
<tr>
<td>10. Number of participants analysed in each group</td>
<td>12 (9.3)</td>
</tr>
<tr>
<td>11. Recruitment (trial status)</td>
<td>129 (100)</td>
</tr>
<tr>
<td>12. Results of outcomes for each group</td>
<td>29 (22.5)</td>
</tr>
<tr>
<td>13. Precision estimate of the primary outcome, 95% confidence interval</td>
<td>11 (8.5)</td>
</tr>
<tr>
<td>14. Important side effects or adverse events</td>
<td>10 (7.8)</td>
</tr>
<tr>
<td>15. Conclusion (general interpretation of results)</td>
<td>107 (82.9)</td>
</tr>
<tr>
<td>16. Trial registration</td>
<td>2 (1.6)</td>
</tr>
<tr>
<td>17. Source of funding</td>
<td>5 (3.9)</td>
</tr>
</tbody>
</table>

Table 1 displays how many of the items were fulfilled by the abstracts.

Discussion

Our survey indicates that the reporting quality of conference abstracts on RCTs in Gerontology and Geriatrics is remarkably poor. Only three items have been fulfilled regularly, i.e. reporting on the administered intervention in each group, trial status, and general interpretation of the results. The necessary information for assessing the risk of bias is omitted by the majority of abstracts. Thus, our study confirms the results of previous analyses [1–3]. The extended CONSORT statement on abstract reporting has obviously not been recognized at all so far.

Our analysis has strong points: We evaluated a relevant number of n = 129 conference abstracts, assessment has been performed by two independent researchers and inter-rater agreement turned out to be good.

Our survey also has significant limitations. Abstracts from only one large congress in the field of gerontology and geriatrics constitute the sample size. On the other hand, there is no reason to assume that other congresses deal with abstracts of higher quality. Indeed, it might have been too early to assess the abstracts of a conference held in July 2009, using the items of the extended CONSORT statement. However, the reporting statement was published in January 2008 and the deadline for abstract submission for the World

Fig. 1 Selection process of abstracts up to the finally included sample.

www.elsevier.de/zefq

ZEFQ 461
Congress was January 31, 2009. Beyond the availability of the extended CONSORT statement, authors of RCTs ought to be familiar with the requirements of transparent reporting according to the original CONSORT statement, which was first published in 1996 [7]. Unfortunately, this is not always the case, as confirmed by a recently published comparison of randomised trials indexed in PubMed in 2000 and 2006, investigating whether the quality of reporting had improved after publication of the CONSORT statement in 2001. Only marginal improvement has been found [8] – a surprising result, since structured efforts had been undertaken to implement the CONSORT statement [9]. However, lack of awareness and a considerable amount of ignorance have been presumed to be the main barriers against successful implementation [10]. The implications are clear: It is essential that medical associations actively publicise the extended CONSORT statement for abstract reporting throughout their journals, that advice researchers use the statement when preparing their abstract for submission, and that reviewers are instructed to check the items. A wide endorsement of the CONSORT statement must become imperative for journals’ editors and for committees organising congresses. Otherwise the recommendations cannot generate the benefits intended [8]. The most recently published update of the CONSORT statement targeting full text publications as well as abstracts of RCTs might significantly foster transparent research reporting [11].

Conclusion

The transparency of reporting of congress abstracts in the field of Gerontology and Geriatrics is remarkably poor. The extended CONSORT statement on abstract reporting, firstly published in January 2008, has obviously not been recognized so far. It is essential that not only journal editors but also committees organising congresses include the CONSORT statement in their guidelines for abstract preparation and instruct reviewers to check the items. Medical associations are requested to actively endorse the CONSORT statement.

Competing interests

The authors declare that they have no competing interests. Both authors attended the 19th World Congress of Gerontology and Geriatrics in Paris. GM contributed as abstracts’ peer reviewer to the Congress and raised the idea to systematically review all abstracts reporting on RCTs as a consequence of being irritated by the reporting quality of the abstracts. The study was performed without financial support.

Acknowledgement

We thank Irmela Gnass, Pia von Lützau, and Iris Hochgraeber, University of Witten, Faculty of Medicine, Institute of Nursing Science, for their help in the screening of abstracts and database management.

References


