SWAR 12: Contacting authors about additional study data – a randomised study comparing two strategies

Objective of this SWAR
To examine the effects of querying authors using personalised, study-specific questions in the email main text versus sending standardised data request forms as email attachments on response rate, data completeness, and reviewer time invested.

Study area: Data collection, Author contact
Sample type: Study authors
Estimated funding level needed: Unfunded

Background
Systematic review authors regularly come across eligible studies for which the description of methods is unclear or data are incomplete. Cochrane guidance recommends that reviewers contact study authors for clarification or to request additional data [1, 2]. In this context, review authors are advised to contact other authors if the corresponding author cannot be contacted or does not respond, to ask open-ended questions for descriptive information, and to provide a short data collection form (either uncompleted or partially completed) for specific data requests [1]. They are also encouraged to be judicious in the number of queries, considering the burden they impose on authors, to use user-friendly interfaces to display the data extracted to aid confirmation, and to be clear in describing the specific missing data being requested [3].

Previous empirical research has evaluated real or perceived barriers and facilitators to effective author contact. Barriers consist in uncertainties on how to conduct and report author contact in systematic reviews [3, 4], in difficulties locating study authors [4-6], and in authors not responding to emails, with observed response rates between 32 and 78% [4-8]. Contact with non-native speakers of English may be more difficult because of language barriers, but no evidence is available yet to support this supposition [7]. The number of items requested per author did not influence the probability of response [5]. Some authors found greater response rates when requesting clarification of methods than missing data [9], whereas others did not [7]. Finally, if conflicting data were obtained from the publications and from author contact, there was uncertainty on which source to trust [4, 10].

In terms of facilitators, email was a faster means of communication than postal mail (3±3 versus 27±30 days mean time to response), and generated more responses (hazard ratior: 2.5, 95% CI: 1.3 to 4.0) [5]. A combination of email with other methods, such as letter or telephone, was more effective than repeat emails, but also more time-consuming [5, 11]. Other reviewers received no additional data in response to telephone contact [7]. Short emails with the systematic review's protocol attached were as effective in eliciting a response as longer emails detailing the systematic review information [8]. Authors of more recent studies were more likely to be located and provide data [7]. The eminence of the email signatory did not elicit greater reply rates [12]. Previous research on the relative effectiveness of contacting corresponding versus other authors was inconclusive [9].

Our hypothesis is that the presentation of the data request may influence response rates and completeness of data provided. On one hand, study authors may perceive the workload to be lower when asked questions in the main text of an email than when receiving data collection forms as email attachments. A lower perceived workload might in turn elicit a higher response rate. On the other hand, review authors may anticipate a more complete response to standardised data collection forms than to free text in emails, because some items might be overlooked more easily in an email.

Therefore, we carried out a nested randomised controlled trial to investigate the effect of two different presentations of data requests to study authors. This study will be embedded in a systematic review of hospital volume-outcome relationships in total knee arthroplasty [13].

Interventions and comparators
Intervention 1: Personalised, study-specific questions in the email main text

Intervention 2: Structured data request form as an email attachment (partially pre-filled with available data for accuracy checking)

All authors of studies eligible for our systematic review (N=59 studies with 51 unique corresponding authors, potentially more after a search update) will be contacted by email, providing details of the systematic review including a brief description of research aims and the PROSPERO registration number and link to the PROSPERO record [13], as well as our contact details.

We will attempt to optimise response rates by searching for up-to-date author information online or in recent publications, by writing to non-responding authors in their mother tongue, and by contacting other authors if the corresponding author does not reply. We will send a maximum of four emails for each study, and the overall time to await replies will be limited to eight weeks. If study authors reply that they will send data later, we will send up to three email reminders to the same recipient if they do not send the data.

Access to all email correspondence and other study data will be limited to the SWAR team (Käthe Goossen, Tanja Rombey and Dawid Pieper). Results will be published as aggregate, anonymised data, so that personal identification of the study authors involved will not be possible.

Index Type:

Method for allocating to intervention or comparator
Randomisation

Outcome measures
Primary: Author reply received (yes/no, disregarding automated replies such as out-of-office messages)
Secondary: Complete data provided (yes/no, overall and stratified into (a) clarification of methods and (b) data missing in publication)

Time invested by reviewers in preparing the personalised emails and pre-filling the structured data request, as well as any follow-up communication with study authors (in hours).

Analysis plans
Response rates and data completeness will be compared using the odds ratio and corresponding 95% confidence interval; reviewer time invested will be compared using the mean and SD.

Possible problems in implementing this SWAR
Blinding of researchers will not be possible. To ensure that awareness of the study does not influence study authors in their decision on whether to reply and whether to provide data, we will contact them without making any reference to this SWAR. Blinding of outcome assessment was not considered necessary because the outcomes are objective.

The sample size is limited by the number of studies eligible in the systematic review. With 51 study authors, the study is powered to detect a 35-40% difference in reply rates between the groups (alpha=0.05, beta=0.20).

References
1. Li T, Higgins JPT, Deeks JJ (editors). Chapter 5: Collecting data. In: Higgins JPT, Thomas J, Chandler J, Cumpston M, Li T, Page MJ, Welch VA (editors). Cochrane Handbook for Systematic Reviews of Interventions version 6.0 (updated July 2019). Cochrane, 2019. Available from www.training.cochrane.org/handbook.
2. Higgins JPT, Lasserson T, Chandler J, Tovey D, Thomas J, Flemyng E, Churchill R. MECIR standard C49: Obtaining unpublished data; Standards for the conduct of new Cochrane Intervention Reviews. In: Higgins JPT, Lasserson T, Chandler J, Tovey D, Thomas J, Flemyng E, Churchill R. Methodological Expectations of Cochrane Intervention Reviews. Cochrane: London, October 2019.
3. Mullan RJ, et al., Systematic reviewers commonly contact study authors but do so with limited rigor. Journal of Clinical Epidemiology 2009; 62(2): 138-42.

4. Meursinge RR, Ladu L, Di Girolamo N. Contacting of authors modified crucial outcomes of systematic reviews but was poorly reported, not systematic, and produced conflicting results. Journal of Clinical Epidemiology 2019; 115: 64-76.
5. Gibson CA, et al., Author contacts for retrieval of data for a meta-analysis on exercise and diet restriction. International Journal of Technology Assessment in Health Care 2006; 22(2): 267-70.
6. Cooper C, Bou JT, Varley-Campbell J. Evaluating the effectiveness, efficiency, cost and value of contacting study authors in a systematic review: a case study and worked example. BMC Medical Research Methodology 2019 19(1): 45.
7. Selph SS, Ginsburg AD, Chou R. Impact of contacting study authors to obtain additional data for systematic reviews: diagnostic accuracy studies for hepatic fibrosis. Systematic Reviews 2014; 3: 107.
8. Godolphin PJ, Bath PM, Montgomery AA. Short email with attachment versus long email without attachment when contacting authors to request unpublished data for a systematic review: a nested randomised trial. BMJ Open 2019; 9(1): e025273.
9. Guevara J, et al. How do authors respond to written requests for additional information? In: Corroboree. Abstracts of the 13th Cochrane Colloquium; 2005 22-26 Oct; Melbourne, Australia. 2005.
10. Lensen S, Farquhar C. Should we trust author correspondence? A case study looking at risk of bias. Cochrane Gynaecology and Fertility Group, New Zealand. Available at https://www.globalevidence summit.org/abstracts/should-we-trust-author-correspondence-casestudy-looking-risk-bias. (Accessed 11 December 2019).
11. Danko KJ, et al. Contacting authors by telephone increased response proportions compared with emailing: results of a randomized study. Journal of Clinical Epidemiology 2019; 115: 150-159.
12. Young T, Hopewell S. Methods for obtaining unpublished data. Cochrane Database of Systematic Reviews 2011; (11): Mr000027.
13. Rombey T, et al. Hospital volume-outcome relationship in total knee arthroplasty: a systematic review and non-linear dose-response meta-analysis. PROSPERO 2019 CRD42019131209 Available at https://www.crd.york.ac.uk/prospero/display_record.php?ID=CRD42019131209.

Publications or presentations of this SWAR design

Käthe Goossen, Tanja Rombey, Charlotte M. Kugler, Karina K. De Santis, Dawid Pieper. Author queries via email text elicited high response and took less reviewer time than data forms - a randomised study within a review. Journal of Clinical Epidemiology (2021), https://doi.org/10.1016/j.jclinepi.2021.02.006

Examples of the implementation of this SWAR

People to show as the source of this idea: Käthe Goossen, Tanja Rombey and Dawid Pieper
Contact email address: kaethe.goossen@uni-wh.de
Date of idea: 15/JAN/2020
Revisions made by:
Date of revisions: