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**Title:**

Medical Librarians’ Knowledge and Practices in Locating Clinical Trials for Systematic Reviews

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**Abstract**

**Objective:** In regard to locating clinical trials for a systematic review, limited information is available about how librarians locate clinical trials in biomedical databases, including how much information researchers provide librarians to assist with the development of a comprehensive search strategy, which tools librarians turn to for information about study design methodology, and librarians’ confidence levels in their knowledge of study design methodology. A survey was developed to explore these aspects of how a medical librarian locates clinical trials when facilitating systematic reviews for researchers.

**Methods:** In this cross-sectional study, a 21-question survey was sent to medical librarians via several email listservs during April 2020. Respondents were limited to those librarians who make the decisions on search terms for systematic reviews.

**Results:** Responses (n=120) indicated that librarians were often asked to search for various types of clinical trials. However, there was not a consistent method for creating search strategies that locate diverse types of clinical trials. Multiple methods were used for search strategy development, with hedges being the most popular method. In general, these librarians considered themselves to be confident in locating trials. Different resources were used to inform study types, including textbooks, articles, library guides and websites.

**Discussion:** Medical librarians indicated that while they felt confident in their searching skills, they did not have a definitive source for information about the various types of clinical trials, and their responses demonstrated a clear need and desire for more information on study design methodology.

**Survey**

Responses collected through 3/31/2020 - 4/30/1010

**Tell us about yourself/demographics**

How would you describe the place where you work? \_\_\_\_\_\_\_

86% of respondents were from a university (58%) or academic medical center(28%)

In what country do you work? USA: 70%, Canada: 11%;

others: Denmark 4%

Australia 2%

Germany 2%

Norway 2%

UK 2%

Which of the following best describes your job? Choose one.

* Librarian: 92%
* “Informationist”: 5%
* Other: 2%

How would you describe your searching skills? Choose one.

* Novice: 0%
* advanced beginner: 0%
* competent: 7%
* proficient: 48%
* expert: 45%

While every systematic review is different, how many hours would you estimate that you typically put into creating the search strategy for a systematic review? \_\_\_\_ (Not calculated; determined to be not useful)

**Literature Search**

**Thinking of the systematic reviews you’ve worked on and in which you were credited as a co-author or acknowledged by name in a peer-reviewed publication:**

When discussing the literature search, how often did the researchers specify that they want the search results *limited to clinical trials*?

never: 20%, rarely: 29%, **Sometimes: 42%,** often: 7%, always: 1%

If the researcher said they wanted results limited to trials, how often did the researchers specify the *types* of trials (i.e. randomized, interventional, etc.) for which you should search?

never: 8%, rarely: 19%, sometimes: 26%, **often: 33%,** always: 14%

If the researchers specified types of trials, how often did the researchers want you to locate *only randomized controlled trials*?

never: 8%, rarely: 19%, sometimes: 26%, **often: 31**%, always: 16%

Research is sometimes put into categories such as prognostic, causation, therapeutic, etiology, guide-lines, etc. How often are you aware of such a categorization for a research project you are working on?

never: 12%, rarely: 15%, sometimes: 20%, **often: 31%,** always: 22%

If you are aware of such categorization, does it affect your search strategy?

never: 3%, rarely: 11%, **sometimes: 41%,** often: 25%, always: 19%,

If the researcher wants you to search for clinical trials (of any type), how do you locate these trials?

Click **all** that apply.

55% I use a pre-formulated search filter (i.e. a hedge)

27% I use filters offered by the databases

35% I develop my own set of terms

6% My institution has a recommended set of terms

23% I didn’t limit my search to trials; instead I ask the researchers to look for trials in the title/abstract

 screening process

27% I use exclusions (i.e. NOT editorials)

3% Not applicable; researchers never ask me to limit search results to clinical trials

5% Other: clinical trials registries (5 of the 6 “Others” mentioned this)

If you use search filters (even if just occasionally), what are some of the pros and cons? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**How confident are librarians that they have the skills needed to effectively conduct literature searches for systematic reviews?**

I am confident in my ability to locate clinical trials in the biomedical databases (i.e. PubMed).

**Strongly agree: 45%** Agree: 43% Neither Agree nor Disagree: 10% Disagree: 1% Strongly Disagree: 1%

My knowledge of the types of clinical trials is sufficient to locate them for a systematic review.

Strongly agree: 25% **Agree: 58%** Neither Agree nor Disagree: 13% Disagree: 3% Strongly Disagree: 1%

When I have questions about types of clinical trials, I can find the answers quickly and easily.

Strongly agree: 15% **Agree: 58%** Neither Agree nor Disagree: 18% Disagree: 7% Strongly Disagree: 2%

Practical Examples:

If a researcher asked me to “find all interventional studies” I could do that without having to do research into the study types I've been asked to search

Strongly agree: 12% Agree: 37% Neither Agree nor Disagree: 15% Disagree: 32% Strongly Disagree: 4%

If a researcher asked me to “find all longitudinal studies” I could do that without having to do research into the study types I've been asked to search

Strongly agree: 13% Agree: 32% Neither Agree nor Disagree: 17% Disagree: 33% Strongly Disagree: 4%

If you do seek information about study types, what resources do you use?

|  |  |
| --- | --- |
| articles / books / textbooks | 40% |
| "talk" / colleagues / researcher\* | 24% |
| other  | 23% |
| PubMed / MeSH | 20% |
| Google/ Wikipedia/ internet | 17% |
| libguides | 16% |
| CEBM / EBM / Oxford | 10% |
| Cochrane | 10% |
| JAMA | 10% |
| ISSG | 6% |
| previous courses or classes | 5% |
| JBI or Briggs | 3% |

Any other thoughts on finding clinical trials for systematic reviews? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_