

PEER REVIEW OF LITERATURE SEARCH STRATEGIES: DOES IT MAKE A DIFFERENCE?

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BACKGROUND

Peer review is an integral part of scientific research. For information specialists, peer-review feedback is used to validate the quality of search strategies.

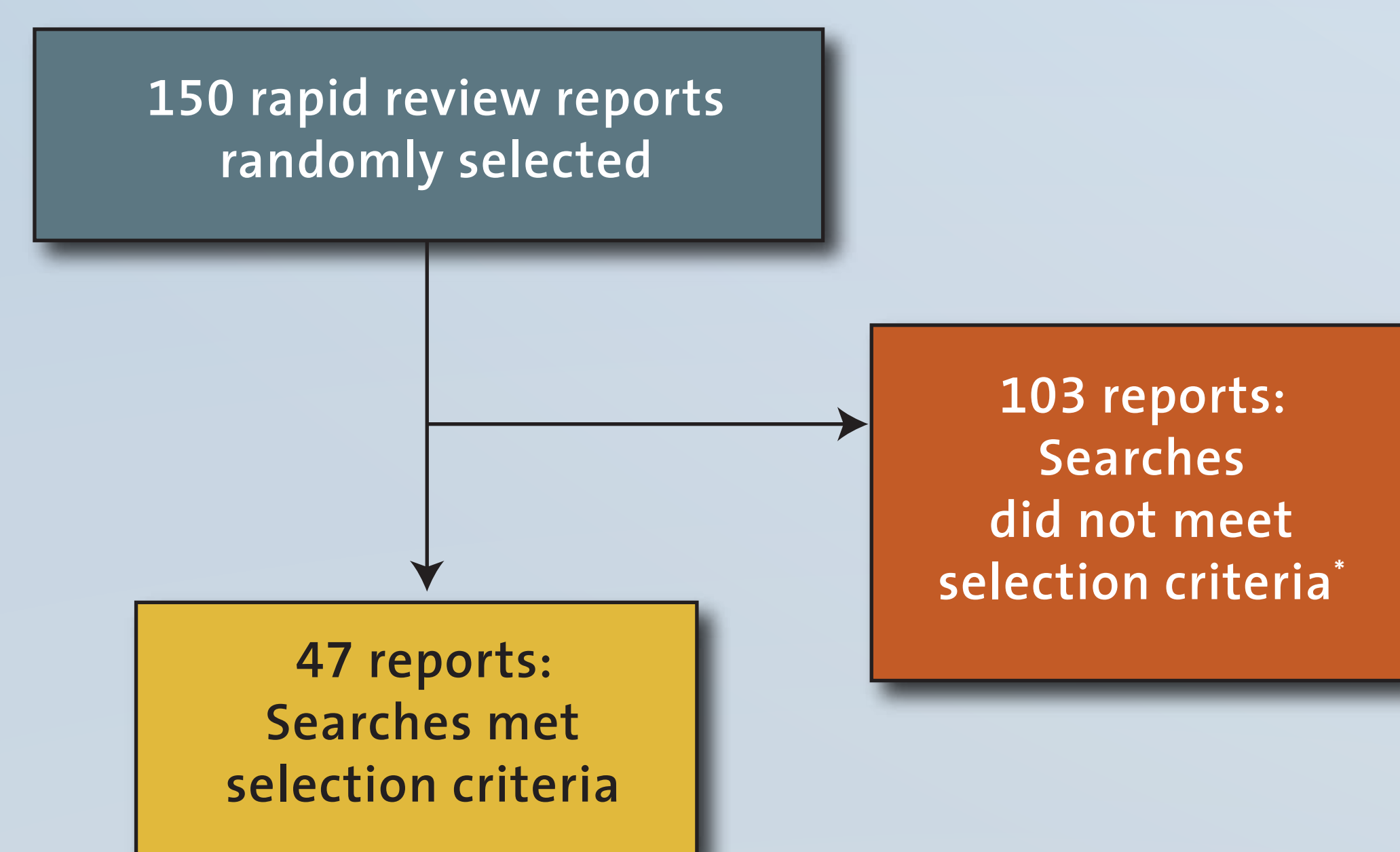
OBJECTIVE

To determine whether the peer review of literature search strategies has an effect on the number and quality of articles included in rapid review reports from the Canadian Agency for Drugs and Technologies in Health (CADTH).

METHOD

A total of 150 peer-reviewed search strategies for CADTH rapid review reports related to health devices, medical procedures, and pharmaceuticals were randomly selected and screened (Figure 1). For search strategies meeting specified selection criteria, pre-peer-reviewed and corresponding peer-reviewed searches were run and the search results were compared (Figure 2). Unique articles retrieved solely by peer-reviewed searches and included in the final report were identified and categorized according to publication type (Figure 3).

Figure 1: CADTH Rapid Review Reports: Screening

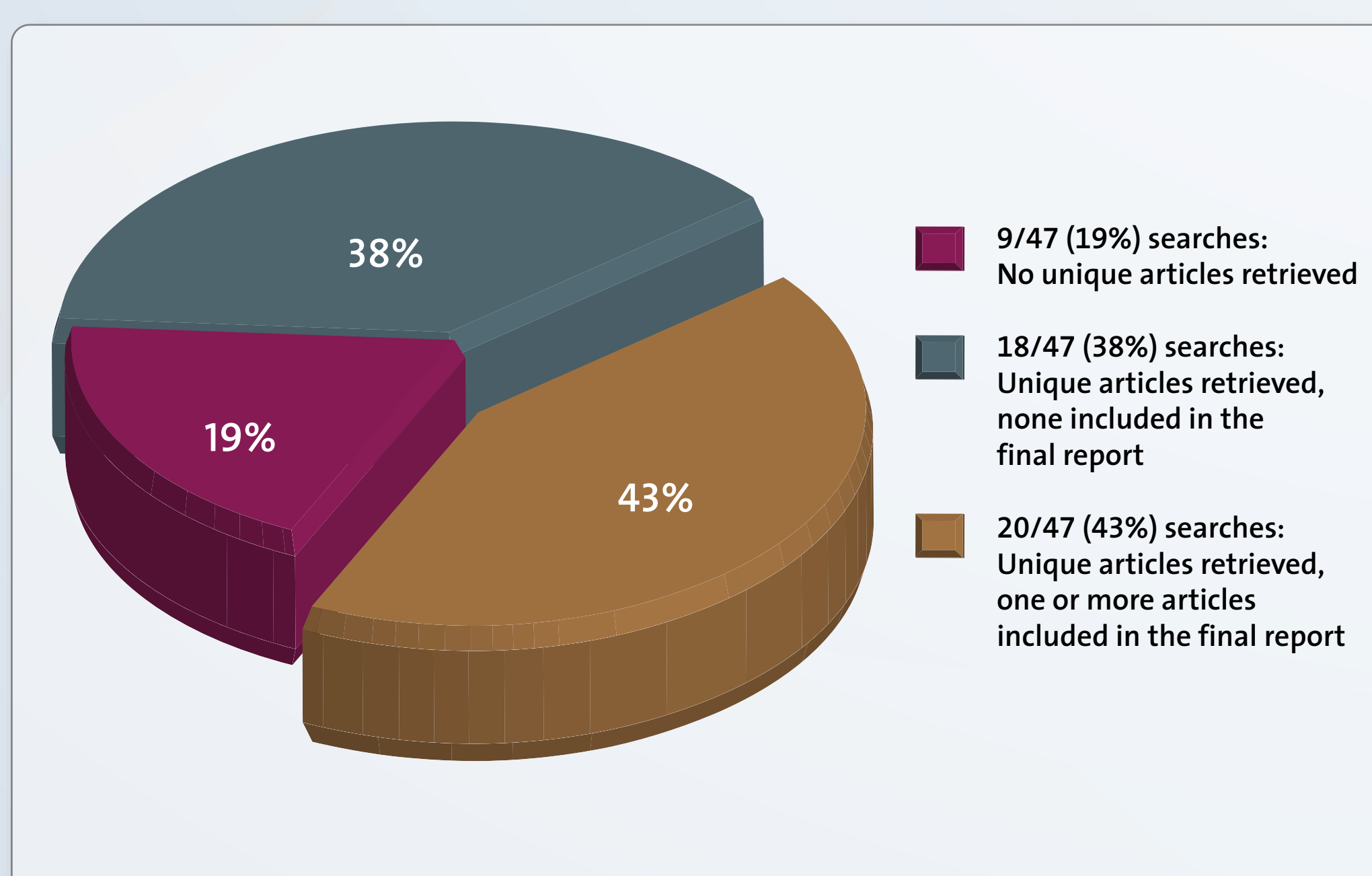


*Search strategies meeting selection criteria were reproducible, peer-reviewed PubMed searches for rapid reviews, with final reports containing at least one article (i.e., not a blank report).

RESULTS

A total of 47 pre-peer-reviewed and corresponding peer-reviewed search strategies were compared to determine whether any unique articles were retrieved by the peer-reviewed searches. In cases where unique articles were retrieved, final rapid review reports were examined to see whether any of these articles were selected for inclusion. The results fell into three groups, as illustrated in Figure 2.

Figure 2: Effect of Peer Review on Retrieval

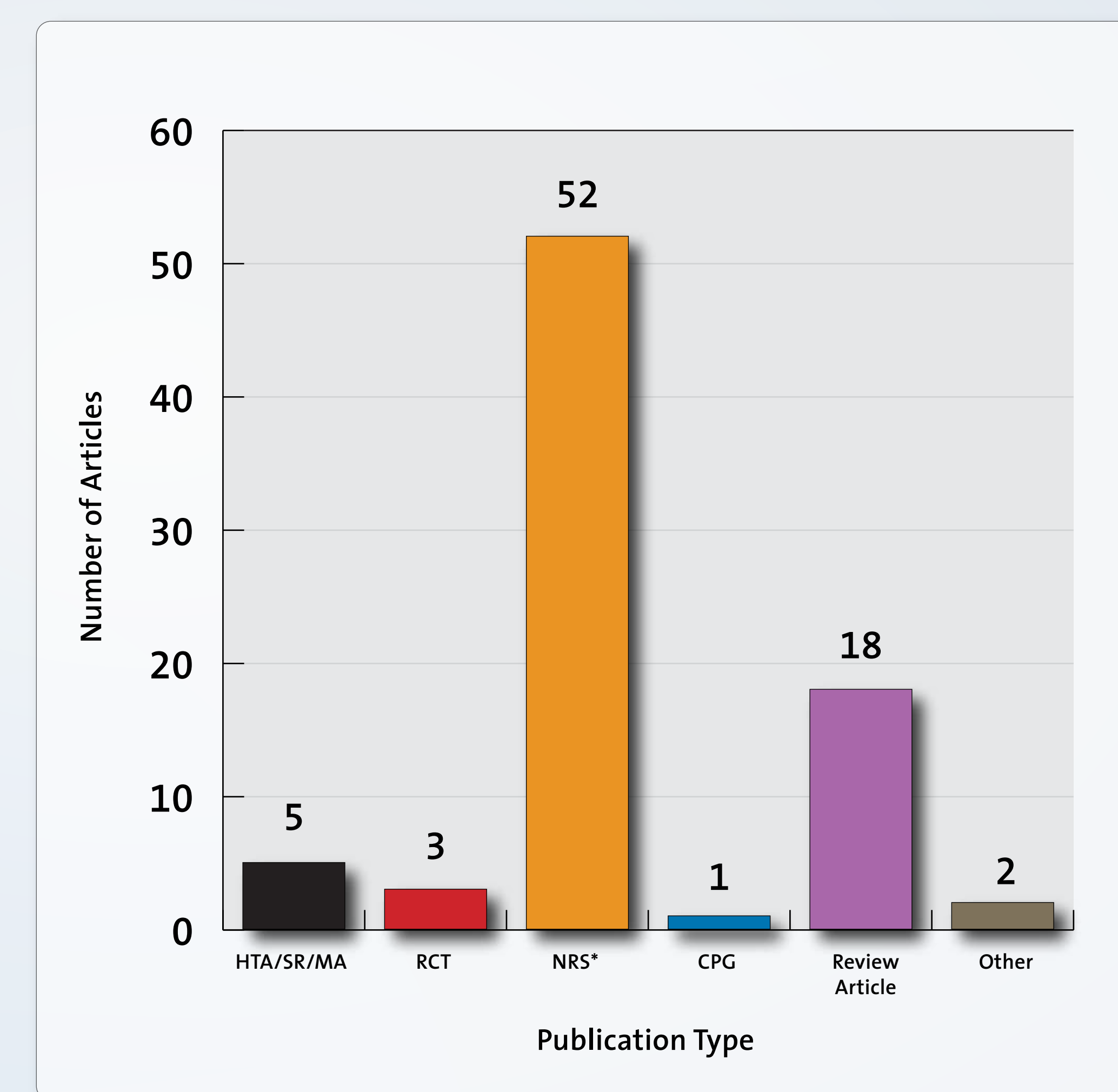


DISTRIBUTION OF PUBLICATION TYPE

Of the 47 pre-peer-reviewed and peer-reviewed search strategies compared, 43% yielded a total of 81 unique articles included in final rapid review reports. Figure 3 illustrates the number and types of articles retrieved.

CADTH rapid review reports are organized with the higher quality evidence presented first. Health technology assessment reports, systematic reviews, and meta-analyses are followed by randomized controlled trials, non-randomized studies, clinical practice guidelines, and review articles, in that order.

Figure 3: Unique Articles Retrieved by Peer-Reviewed Searches and Included in Rapid Review Reports



CPG = clinical practice guidelines; HTA/SR/MA = health technology assessment/systematic review/meta-analysis; NRS = non-randomized study; RCT = randomized controlled trial.

*NRS: "Any quantitative study estimating the effectiveness of an intervention (harm or benefit) that does not use randomization to allocate units to comparison groups."¹

CONCLUSION

The results of this study suggest that the peer review of literature search strategies can improve both the number and quality of relevant articles retrieved.

REFERENCE

1. Including non-randomized studies. In: Higgins JPT, Green S, editors. Cochrane handbook for systematic reviews of interventions. Chichester (UK): Cochrane Collaboration; 2008. Chapter 13. (Cochrane book series).