Aim

This bulletin is designed to help healthcare library staff deliver Knowledge for Healthcare by keeping us up-to-date with the knowledge needs, preferences and behaviours of healthcare staff, students, patients and the public.

Sources scanned

Sources scanned include ALIA, BNI, CILIP weekly news and Update, CINAHL, Embase, Emerald Insight, ERIC, Google Scholar, HLG news, HMIC, Knowledge for Healthcare Blog, LISA, Medline, MLA news, NICE Information Services Bulletin and PubMed.

Creators

This bulletin is compiled on behalf of Health Education England by Gloucestershire Hospitals NHS Foundation Trust Library & Knowledge Service ghn-tr.libraryghnhsft@nhs.net

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Healthcare Workforce

**Searching Embase and MEDLINE by using only major descriptors or title and abstract fields: a prospective exploratory study**

**Source:** Systematic Reviews

**Publication date:** November 2018


Researchers performing systematic reviews (SRs) must carefully consider the relevance of thousands of citations retrieved from bibliographic database searches, the majority of which will be excluded later on close inspection. Well-developed bibliographic searches are generally created with thesaurus or index terms in combination with keywords found in the title and/or abstract fields of citation records. Records in the bibliographic database Embase contain many more thesaurus terms than MEDLINE. Here, we aim to examine how limiting searches to major thesaurus terms (in MEDLINE called focus terms) in Embase and MEDLINE as well as limiting to words in the title and abstract fields of those databases affects the overall recall of SR searches.

If you have access to this journal you can read the full text [here](#).

**Bubble effect: including internet search engines in systematic reviews introduces selection bias and impedes scientific reproducibility**

**Source:** BMC Medical Research Methodology

**Publication date:** November 2018

Using internet search engines (such as Google search) in systematic literature reviews is increasingly becoming a ubiquitous part of search methodology. In order to integrate the vast quantity of available knowledge, literature mostly focuses on systematic reviews, considered to be principal sources of scientific evidence at all practical levels. Any possible individual methodological flaws present in these systematic reviews have the potential to become systemic. This particular bias, that could be referred to as (re)search bubble effect, is introduced because of inherent, personalized nature of internet search engines that tailors results according to derived user preferences based on unreproducible criteria. In other words, internet search engines adjust their user's beliefs and attitudes, leading to the creation of a personalized (re)search bubble, including entries that have not been subjected to rigorous peer review process. The internet search engine algorithms are in a state of constant flux, producing differing results at any given moment, even if the query remains identical. There are many more subtle ways of introducing unwanted variations and synonyms of search queries that are used autonomously, detached from user
insight and intent. Even the most well-known and respected systematic literature reviews do not seem immune to the negative implications of the search bubble effect, affecting reproducibility.

CONCLUSION: Although immensely useful and justified by the need for encompassing the entirety of knowledge, the practice of including internet search engines in systematic literature reviews is fundamentally irreconcilable with recent emphasis on scientific reproducibility and rigor, having a profound impact on the discussion of the limits of scientific epistemology. Scientific research that is not reproducible, may still be called science, but represents one that should be avoided. Our recommendation is to use internet search engines as an additional literature source, primarily in order to validate initial search strategies centered on bibliographic databases.

If you have access to this journal you can read the full text here.

PEDro searching has improved over time: A comparison of search commands from two six-month periods three years apart

Source: International Journal of Medical Informatics

Publication date:

Background: In 2014-2015, the Physiotherapy Evidence Database (PEDro) was searched poorly by users; few search commands used sophisticated features and ~20% contained errors. To improve the quality of PEDro searches, users now receive error messages when using incorrect search commands and have access to video tutorials. Objectives: To determine whether search quality has improved since error messages and tutorials were implemented; and evaluate the content of PEDro searches. Methods: Google Analytics was used to access all search commands on PEDro (between 1 August 2017 and 31 January 2018) and extract the following data: total number of search commands; 25 most common simple and advanced search commands; and frequency of search errors (e.g. Boolean operators) or use of sophisticated features (e.g. truncation/wildcards). Two researchers independently coded the subdiscipline (e.g. musculoskeletal, neurology) and PICO elements (Population; Intervention; Comparison; Outcome) from a random sample of 200 simple and 200 advanced search commands. Data were compared to an identical analysis performed in 2014-2015 to determine whether the content or quality of search commands had changed. Results: There has been a very small increase in the use of truncation/wildcards since 2014-2015 (1.4% increase in simple and 1.9% in advanced search commands; p < 0.001) and small reductions in search errors (Boolean operators: 3.7% reduction in simple and 3.2% in advanced; brackets: 0.9% and 0.4%; non-ASCII characters: 3.1% and 1.6%; p < 0.001 for all analyses). Overall, only 6% of simple and 9% of advanced search commands used
sophisticated features, while 16% of simple and 12% of advanced search commands contained errors. The content of PEDro search commands was largely similar to searches from 2014 to 2015. Conclusion: There has been a small reduction in the number of search commands containing errors, and only a very small increase in the use of sophisticated features. These improvements may be explained by video tutorials on how to optimise searching and warnings that appear when users enter search commands containing errors. However, with 16% of simple and 12% of advanced search commands still containing errors, additional strategies to further improve the quality of searches are needed.

If you have access to this journal you can read the full text [here](#).

**Tool for filtering PubMed search results by sample size.**

**Source:** Journal of the American Medical Informatics Association

**Publication date:** July 2018

Objective The most used search engine for scientific literature, PubMed, provides tools to filter results by several fields. When searching for reports on clinical trials, sample size can be among the most important factors to consider. However, PubMed does not currently provide any means of filtering search results by sample size. Such a filtering tool would be useful in a variety of situations, including meta-analyses or state-of-the-art analyses to support experimental therapies. In this work, a tool was developed to filter articles identified by PubMed based on their reported sample sizes. Materials and Methods A search engine was designed to send queries to PubMed, retrieve results, and compute estimates of reported sample sizes using a combination of syntactical and machine learning methods. The sample size search tool is publicly available for download at [http://ihealth.uemc.es](http://ihealth.uemc.es). Its accuracy was assessed against a manually annotated database of 750 random clinical trials returned by PubMed. Results Validation tests show that the sample size search tool is able to accurately (1) estimate sample size for 70% of abstracts and (2) classify 85% of abstracts into sample size quartiles. Conclusions The proposed tool was validated as useful for advanced PubMed searches of clinical trials when the user is interested in identifying trials of a given sample size.

If you have access to this journal you can read the full text [here](#).

**Emerging roles of health information professionals for library and information science curriculum development: a scoping review.**

**Source:** Journal of the Medical Library Association
**Publication date:** October 2018

Objective: This scoping review identified the emerging and evolving roles of health information professionals (HIPs) in a range of tasks and settings, as they adapt to varied user needs, while keeping up with changing medical landscapes to evidence-based information support in grand rounds and scholarly research. The review aims to inform library school students about expected entry-level job qualifications and faculty about adaptable changes to specialized HIP curricula. Methods: The authors examined 268 peer-reviewed journal articles that concentrated on evolving HIP roles, professional settings, and contexts by retrieving results from several multidisciplinary databases. Results: HIPs, who generally serve as “embedded librarians,” are taking on more active roles as collaborators, research experts, and liaisons, replacing more passive and exclusive roles as information providers and outreach agents or research assistants. These evolving roles in the reviewed literature were broken into nine categories in approximate order of prominence. Conclusions: A new model linking these evolving roles to the Medical Library Association (MLA) fundamental professional competencies was developed to provide an operational examination and research-based evidence for adapting HIP continuing education curriculum learning outcomes, course content and delivery, and student career pathways for existing graduate HIP specialization courses in library programs. The model indicates each role’s connection to the MLA professional competencies, based on MLA’s detailed description of each competency. A better understanding of HIP demands and expectations will enhance the capacity of library programs to prepare students in HIP specializations. This article has been approved for the Medical Library Association’s Independent Reading Program.

If you have access to this journal you can read the full text here.

**Systematic review or scoping review? Guidance for authors when choosing between a systematic or scoping review approach.**

**Source:** BMC Medical Research Methodology

**Publication date:** November 2018

Scoping reviews are a relatively new approach to evidence synthesis and currently there exists little guidance regarding the decision to choose between a systematic review or scoping review approach when synthesising evidence. The purpose of this article is to clearly describe the differences in indications between scoping reviews and systematic reviews and to provide guidance for when a scoping review is (and is not) appropriate.

If you have access to this journal you can read the full text here.

**A systematic mixed studies review on Organizational Participatory Research: towards operational guidance.**

**Source:** BMC Health Services Research

**Publication date:** December 2018

[Organizational Participatory Research (OPR) seeks organizational learning and/or practice improvement.]
Previous systematic literature reviews described some OPR processes and outcomes, but the link between these processes and outcomes is unknown. We sought to identify and sequence the key processes of OPR taking place with and within healthcare organizations and the main outcomes to which they contribute, and to define ideal-types of OPR.

If you have access to this journal you can read the full text here.

Patients and the Public

**Online Health Searches and Their Perceived Effects on Patients and Patient-Clinician Relationships: A Systematic Review**

*Source:* American Journal of Medicine  
*Publication date:* October 2018

Online health searches are common and may be impacting patients and their relationships with their clinicians in ways that are not fully understood. We searched PubMed, Embase, Cochrane Reviews, Cochrane Trials, Scopus, and CINAHL from January 1, 1990 to January 29, 2016 for studies in which patients searched online for any aspect of health care and then visited their clinician. We extracted data pertaining to either patients' or clinicians' perceptions of the effects of these online searches on patients and the patient-clinician relationship. Searches seemed to induce patient anxiety but more often led to patient reassurance, clinical understanding, and empowerment. Patients tended to perceive that online health searches had a positive effect on the patient-clinician relationship, although the nature of the effect could depend on the clinician's response to patient queries about the information. Clinicians generally perceived neutral effects on patients and the patient-clinician relationship and commonly raised concerns about the accuracy of online content. Significant methodologic heterogeneity prevented quantitative synthesis. Accuracy of online health search content was not assessed, and randomized controlled trials were notably lacking.

If you have access to this journal you can read the full text here.

**The effect of optimised patient information materials on recruitment in a lung cancer screening trial: an embedded randomised recruitment trial.**

*Source:* Trials  
*Publication Date:* September 2018

BACKGROUND Written participant information materials are important for ensuring that potential trial participants receive necessary information so that they can provide informed consent. However, such materials are frequently long and complex, which may negatively impact patient understanding and willingness to participate. Improving readability, ease of comprehension and presentation may assist with improved participant recruitment. The Systematic Techniques for Assisting Recruitment to Trials (MRC START) study aimed to develop and evaluate interventions to improve trial recruitment. This study aimed to assess the effectiveness of an optimised participant information brochure and cover letter developed by
MRC START regarding response and participant recruitment rates. METHODS We conducted a study within a trial (SWAT) embedded in the Early CDT Lung Cancer Scotland (ECLS) trial that aimed to assess the effectiveness of a new test in reducing the incidence of patients with late-stage lung cancer at diagnosis compared with standard care. Potential participants approached for ECLS were randomised to receive the original participant information brochure and accompanying letter (control group) or optimised versions of these materials which had undergone user testing and a process of re-writing, re-organisation and professional graphic design (intervention group). The primary outcome was the number of patients recruited to ECLS. The secondary outcome was the proportion of patients expressing an interest in participating in ECLS. RESULTS In total, 2262 patients were randomised, 1136 of whom were sent the intervention materials and 1126 of whom were sent the control materials. The proportion of patients enrolled and randomised into ECLS was 180 of 1136 (15.8%) in the intervention group and 176 of 1126 (15.6%) in the control group (OR = 1.016, 95% CI, 0.660 to 1.564). The proportion of patients who positively responded to the invitation was 224 of 1136 (19.7%) in the intervention group and 205 of 1126 (18.2%) in the control group (OR = 1.103, 95% CI, 0.778 to 1.565). CONCLUSIONS Optimised patient information materials made little difference to the proportion of patients positively responding to a trial invitation or to the proportion subsequently randomised to the host trial.

You can access the full text here

One of the proposed solutions of the EBM Manifesto Educate the public in evidence-based healthcare to make informed decisions
Source: BMJ Evidence Based Medicine
Publication Date: July 2018

You can access the full text here

Online health information seeking by adults hospitalized for acute coronary syndromes: Who looks for information, and who discusses it with healthcare providers?
Source: Patient education and counselling
Publication Date: Nov 2018

OBJECTIVE To describe characteristics associated with online health information-seeking and discussing resulting information with healthcare providers among adults with acute coronary syndromes (ACS). METHODS Consecutive patients hospitalized with ACS in 6 hospitals in Massachusetts and Georgia who reported Internet use in the past 4 weeks (online patients) were asked about online health information-seeking and whether they discussed information with healthcare providers. Participants reported demographic and psychosocial characteristics; clinical characteristics were abstracted from medical records. Logistic regression models estimated associations with information-seeking and provider communication. RESULTS Online patients (N=1142) were on average aged 58.8 (SD: 10.6) years, 30.3% female, and 82.8% non-Hispanic white; 56.7% reported online health information-seeking. Patients with higher education and difficulty accessing medical care were more likely to report information-seeking; patients hospitalized with myocardial infarction, and those with impaired health numeracy and limited social networks were less likely. Among information-seekers, 33.9% discussed information with healthcare providers. More education and more frequent online information seeking were associated with provider discussions. CONCLUSION Over half of online patients with ACS seek health information online, but only 1
in 3 of these discuss information with healthcare providers. PRACTICE IMPLICATIONS Clinician awareness of patient information-seeking may enhance communication including referral to evidence-based online resources.

If you have access to this journal you can read the full text [here](#)