


ORIGINAL ARTICLE

NHS librarians collaborate to develop a search bank peer reviewing and sharing COVID-19 searches - an evaluation

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Abstract

Background: Responding to the COVID-19 pandemic, Health Education England (HEE) mobilised a group of expert searchers from NHS libraries in England to develop a platform for librarians to share peer reviewed search strategies and results on the Knowledge for Healthcare website.

Objectives: (1) To document the origins of the COVID-19 search bank, (2) evaluate attitudes of NHS librarians in England towards the search bank and (3) identify lessons learned and consider whether the initiative might be developed further.

Methods: Structured interviews with the peer reviewers ($n = 10$) were conducted, and a questionnaire survey of the NHS library community using the search bank was undertaken.

Results: The interviews confirmed the value of collaboration. Expert searchers worked in pairs to peer review submitted search strategies. The survey (85 responses) indicated that a majority had used the search bank, and approved of the project, with some differences of opinion on functionality and future developments.

Discussion: Collaborative working for the search bank probably saved time for individual NHS librarians. The quality of the searches submitted was variable as were librarians' approaches to presentation and development of search strategies. Peer review benefits from a buddy approach among expert searchers and agreement about feedback provided to contributors.

Conclusion: Search strategies are the most useful element of a search bank. Peer review can be challenging and would benefit from a formal structure, but it is professionally rewarding.

KEYWORDS

collaboration, librarians, literature searching, National Health Service (NHS), peer review, search strategies, United Kingdom

BACKGROUND

Initiating the search bank repository

In response to the evident need to enable more sharing and reduction of duplication during the COVID-19 pandemic, Health Education England (HEE) mobilised a group of expert searchers from across the NHS in England. With many NHS library staff redeployed in the first wave of the pandemic, HEE was keen to make a shared bank of literature searches relating to COVID-19 available to NHS staff who had limited access to library services and expert searchers.

Librarians involved in search and training forums across the NHS in England were invited by HEE to an initial meeting on 1st April 2020 to discuss what kind of resource was required to meet this need, and to inform the development of a search bank. The attendees at this meeting subsequently formed the Covid search bank group. This group agreed that the key elements of a search bank should comprise recent completed searches, search strings, and search terms on the topic.

From the initial meeting, and some sample searches provided by the librarians, a member of the HEE Knowledge and Library Services team developed a search bank database using functionality available on the Knowledge for Healthcare website. (NHS Health Education England, 2020).

A member of the KnowledgeShare service (Brighton and Sussex University Hospitals NHS Trust, 2013–2021) formed part of the working group, ensuring that any searches related to COVID-19 on this platform were identified. KnowledgeShare is a web application used by 50% of NHS libraries in England, which allows library and knowledge services to manage requests for evidence searches and share the results of searches.

Peer review process

There was initially a lack of quality peer reviewed research on COVID-19 as understanding of the virus was so new. The group wanted to take a pragmatic approach by sharing searches as quickly as possible due to the fast-moving nature of the situation and the demand for information from NHS staff. The following week, the search bank was ready to launch, and a message was sent out by HEE to UK health librarian professional discussion lists inviting the submission of searches to a dedicated COVID-19 e-mail address.

Key Messages

- A buddy system is particularly beneficial for peer reviewers. A clearer structure for a peer review process is needed, however.
- Search banks benefit from a strong purpose. Search strategies are the most useful element as searches quickly go out of date. Clearer guidance for submissions should be provided.
- The quality of searches is variable, and even competent searchers displayed a lack of confidence in their abilities. Feedback on searches and strategies should be provided to validate work and provide suggestions.
- Training and development needs identified include training on how to provide effective feedback.

The group agreed ways of working; librarians would work in pairs to review incoming searches to share the workload and to get a second opinion so a weekly rota was compiled for the eight librarians involved. Processes were agreed, with HEE setting up a SharePoint site for the librarians working across multiple organisations to use. Incoming searches were saved here, along with a developing list of key terms which the expert searchers maintained. A master spreadsheet was used to record all searches and the reviewers' comments. The HEE Knowledge and Library Services team then uploaded the reviewed searches to the new search bank. Further discussion took place about what to include. In the first instance it was decided to add everything, but as the situation was moving so quickly, searches could be replaced if something more up to date was submitted or if it duplicated existing content.

The group continued to meet regularly to discuss and refine its approach. It was recognised that submitted searches, strategies and the peer review process could not be of systematic review standard and it was agreed that the role of the expert searchers was to review searches with a light touch. Often no contextual information was available in early submissions, making peer review more difficult. As further research studies on the different characteristics of the virus and its effects became available, the group developed proficiency in the peer review process; asking for context and becoming more selective, ensuring that search strategies were well constructed,

free from spelling and syntax errors and, importantly, reproducible. Search strategies were added sometimes with additional suggestions from the peer reviewers about search terms when they thought they might be improved.

Engagement with the search bank

A total of 258 searches were submitted to the group between mid-March and beginning of December 2020, of which 209 were included in the search bank. The search bank usage was exceptionally high given the Knowledge for Healthcare site's usual traffic. To 8 November 2020, usage of the search bank has received 5830 page views and 3010 unique users.

LITERATURE REVIEW

A review of the international literature was conducted along the following areas:

The role of libraries in times of crisis

In times of crisis the role of librarian flexes and evolves by keeping abreast of technology and other influences. Being physically present allows for the provision of safety and support during civil unrest (Zeman, 2015), or the aftermath of natural disasters (Stricker, 2014). Beyond the physical library there is recognised value in other librarian competences; the Global Financial Crash (2007–2008) could be categorised as a 'failure of information management' (Vincent, 2015).

The theme of librarians doing an ordinary job in extraordinary times emerged from reports of colleagues providing a service (Adamich, 2020) throughout this pandemic and previous disasters, with their work increasingly valued by clinicians and researchers (Dowd, 2020; Featherstone et al., 2012; Ford, 2020).

The Health Information for All (HIFA) Library and Information Services project (2017) brought together HIFA, Public Health England and Evidence Aid. They concluded that libraries were invaluable in terms of support during and after natural disasters and pandemics, to provide best evidence to inform decision-making, and knowledge management to enable effective sharing of information (de Brun, 2017). 'The role for librarians as Global Health Informationist/Disaster Information Specialists is increasingly supported by

specialist training programmes, social media, special interest groups and websites (Public Health England, 2020b)'.

Librarians' role in combatting an 'infodemic' has been described as a 'new front for information professionals' (Naeem & Bhatti, 2020). As mis/disinformation ('fake news') abounds, librarians have responded with the provision of reliable, timely information empowering experts (Dar, 2020) and laypersons (Evidence Aid, n.d.; Yuvaraj, 2020). A recent #UKMedLibs Twitter chat (Roper, 2020), examined the librarian's role in the COVID pandemic and other public health emergencies (de Brun, 2017).

Peer review of literature searches

Peer review of search strategies arose out of the recognition that mistakes could lead to biased or incomplete results (Franco et al., 2018; Sampson & McGowan, 2006). Systematic reviews are gold standard evidence, frequently used in healthcare decision-making, therefore it is crucial they are of the highest standard. Peer review is part of the quality assurance process (Sampson, 2019). It includes verifying the interpretation of the research question and checking terminology and thesaurus terms, limits and filters, spelling and syntax errors. Guidelines to aid peer review are available, such as the PRESS checklist (McGowan et al., 2016a, 2016b). Properly constructed search strategies should be reported in explicit detail and be reproducible by independent reviewers. Craven and Levay (2011) suggest that narrative for the strategy is necessary to provide research context to enable independent peer reviewers to understand the rationale behind the approach. Criticism of systematic reviews, health technology assessments (HTAs) and evidence syntheses usually centres on the absence of an information specialist in the team as this excludes professional quality assurance in construction and review of the strategy (Grossetta Nardini et al., 2019; McGowan & Sampson, 2005).

There is minimal research on peer reviewing other searches provided by librarians. Anecdotally, some libraries use internal peer review. In some cases, this was sparked by research on how different searchers approach the same question (Rosenbloom et al., 2005).

Search banks

There are several UK examples of resources for sharing search results, search summaries, and/or search strategies for health-related topics. These include the MAP toolkit (MAP

Community, 2018); KnowledgeShare (Brighton and Sussex University Hospitals NHS Trust, 2013–2021); Public Health England evidence briefings (Public Health England, 2020a); and House of Commons Library briefings (House of Commons Library, 2021). Public Health England and the Commons Library share only documents created for one institution, while MAP and KnowledgeShare share searches from multiple organisations. While articles have been published on these resources none appear to focus on sharing searches ('Sharing positive connections,' 2014; Skinner, 2008, 2010; 'Survey MAP,' 2017).

During the pandemic many organisations addressed the need to share information (National Collaborating Centre for Methods and Tools, 2020; Norwegian Institute of Public Health, 2020; World Health Organization, 2020). Some supported literature searching by providing strategies, including live links to PubMed COVID-19 strategies (Australian Library and Information Association, 2020; LaLonde, 2020). In Scotland, England, and Northern Ireland, strategies and results were shared in lists or databases (National Health Library & Knowledge Service, 2020; NHS Health Education England, 2020; NHS Scotland, 2020).

Search hedges

Search hedges, also known as filters, are usually methodological search blocks, used in conjunction with a search strategy on a particular topic to narrow down the type of paper retrieved. InterTASC Information Specialists' Sub-Group Search Filter Resource defines search hedges as 'collections of search terms designed to retrieve selections of records. Search filters may be designed to retrieve records of research using a specific study design or by topic or by some other feature of the research question' (Glanville et al., n.d.). This can apply to either the methodological or topic filter. For the purposes of this article, we refer to search hedges to mean the block of the search referring to the topic. Damarell et al. (2019) note the difficulty in applying terminology to search hedges.

Without standardised terminology, hedges, for most topics, are challenging to find. They may exist as part of a systematic review if the full strategy is published, or to support the work of a particular group (e.g., for integrated care or experimental design), 'but they are often hidden. Information specialists may benefit from a centralised topic filter repository and appraisal checklists to facilitate quality assessment' (Damarell et al., 2019). Developing and validating search hedges is resource intensive and keeping them current requires monitoring

of shifting language and controlled terms within biomedical databases.

OBJECTIVES

To document the origins of the Covid-19 search bank, evaluate attitudes of NHS librarians in England towards it, capture learning from the project, and to consider how or if this initiative should be developed.

METHODS

The project was evaluated from the perspectives of the COVID-19 search bank expert searchers working group, and the contributors and users of the search bank. A mix of qualitative and quantitative research methods were used, with structured interviews with the expert searchers, and a survey for the users.

Interviews are one of the most common methods of data used in qualitative health care research, as they are a good tool to explore the views, experiences, beliefs and motivations of individual participants (Gill et al., 2018).

Ten members of the COVID-19 search bank expert searchers working group, were interviewed to discover their motivations for taking part, any learning from the experience, and to collect ideas for possible scaling up of the search bank including suggestions as to how to encourage others to get involved in similar projects. The individual conducting the interviews had not previously been involved in the search bank project. The recorded interviews were conducted in July 2020 using Microsoft Teams. Everyone was asked the same nine questions (see Appendix A), which they were provided with in advance. The analysis of the transcribed interviews identified several themes which are discussed in the results section below.

At the same time the interviews were being conducted, the contributors to, and the users of, the search bank were asked to complete an online survey (see Appendix B) to evaluate their experiences. A survey was chosen as the quantitative research tool as it provides a good mechanism to reach a large audience and establish trends (Jones et al., 2013). The questions were developed by members of the HEE Knowledge and Library Services team based upon what they were interested in finding out about contributor and users experiences. Due to time constraints the survey was not tested prior to opening. This meant that an error later identified in the survey (see Limitations below) was not picked up. The results from the survey were analysed alongside the findings from the interviews and are reported below.

RESULTS

Interviews

Interviews yielded valuable qualitative data. The following themes were identified:

A strong ethos of collaboration in the NHS library community

The expert searchers indicated similar motivations for getting involved, with a common sense of wanting to do something to help:

“It was a way of improving my own skills but also give a little bit back”.

“It really appealed to me that there would be an opportunity to properly pull together and do the ‘do once and share’ thing in the middle of a pandemic”.

A recurring theme highlighted by interviewees was that this initiative had demonstrated how well the NHS library community works together, and the cooperation between them, with a feeling that it was “all hands to the pump”:

“It’s good confirmation that if you put a bunch of librarians together with a common purpose then we can move mountains”.

“We can mobilise pretty quickly when we need to and make something useful from a small germ of an idea to something that people from all over the world are looking at”.

Peer review: Challenges and professional benefits

The peer review element of the project was felt to be the most challenging; the difficulty in evaluating the searches in order to decide if they should be included in the search bank being a common theme. Two interviewees commented that even with the search question and strategy, there was likely to be additional unknown context that a searcher would likely have established with their client which would impact on their interpretation of the question and how much information they needed.

However, several interviewees commented that having a partner with whom to discuss the searches and buddy up with helped immensely.

It was noted that we do not have a culture of peer review within our community, but an imperative for putting our searches for scrutiny was articulated by one interviewee:

“If you’re willing to send a literature search to a clinician, knowing that they may use those to try and change treatment options, or re-design their service—if it’s good enough to do that, then surely it’s good enough to let other people look at it as well”.

All interviewees identified ‘time’ as an additional challenge of the peer review process, and commented that it needed to be scheduled in.

However, it was also clear that there had been many personal and professional benefits to being involved, with several examples of the positive impact on the expert searchers’ practice and contributing to being reflective practitioners:

“You can become set in your ways, I’ve been refreshed by it [...] We need to make sure we’re constantly learning and being as good as we can”.

The benefits included looking at their own searches differently, thinking differently about their presentation of search results, adopting good examples for their evidence search reports, to “becoming aware of my own shortcomings”.

A number of interviewees commented that this had impressed on them the importance of the search strategy and making sure that everything is recorded so that it can be easily replicated, rerun, or adapted. One key learning point was also around the value and benefits of search hedges.

It emerged from the interviews how much the expert searchers had enjoyed and been ‘inspired’ from being part of this initiative:

“Health Education England and library services pulled together in such a fantastic way”.

“It’s been a big bright spot in the COVID lockdown”.

Another key benefit identified by the interviewees was the networking element of the project, with all participants being based in different parts of England this was largely the first time they had worked together:

“Meeting lovely colleagues from all over the country and all the good things that flow from a nice collaborative working environment”.

“It’s such a great networking opportunity; I have had some good sharing email discussions with my other partner on the rota for example when we were discussing whether or not searches should be included”.

Quality of searches

A couple of interviewees noted that the quality of the searches was variable and that there was a need to demonstrate that our literature searches are of high quality and to link this to NHS library quality assurance processes. It was also noted that there is sensitivity around

quality control, with searches being ‘*very much driven by what your user wants*’, and described to be as ‘*as much of an art as a science*’.

Scaling up this initiative

Interviewees were invited to suggest how this search bank initiative might be scaled up. A recurring theme was that this project demonstrated that search banks can work incredibly well when there is ‘a strong purpose that pulls it together’ with either a strong topic like COVID-19, or a strong focus on the peer review and feedback for literature searches. The expert searchers generally expressed scepticism about how well a general search bank would work, as the normal nature of search requests is so diverse. In this case there had been a clear need with the same questions being posed on professional discussion lists. Emerging ideas for taking this forward included considering topics that are topical across the health service and creating a search filter bank rather than including search results which quickly become out of date.

Clearer guidance and parameters for contributors was an element that several interviewees commented would need to be in place. This was identified as one weakness of this project and whilst this was due to the evolving nature of the initiative, and because at the start of the pandemic there was little information, it did lead to some inconsistencies in the quality of searches on the database depending on when they had been uploaded.

One interviewee commented that there would need to be a culture change; whilst this initiative had instigated many librarians to contribute it was felt that it was the ‘bold and the confident’ that put their searches up for scrutiny. Another interviewee noted that there was an element of ‘imposter syndrome’ with those contacted for permission to include their searches ‘bashful’. Indeed, one of the discussions which the group had during its regular meetings was about the terminology of deciding whether to refer to the peer reviewers as ‘expert’ or ‘experienced’.

It was felt that librarians at all levels should be encouraged to be involved, not just ‘high level’ searchers. It was agreed that there would need to be more structure around the peer review process. One interviewee sounded a note of caution of ‘over formalising’ the process to the same level as for example the PRESS format, which might deter people. A strong theme that emerged is that peer review should be a positive process, looking to provide constructive feedback not criticism.

The interviewees were asked to comment on what recommendations they had for anyone taking part in a

TABLE 1 Breakdown of the COVID-19 search bank usage identified by the survey

Which sections of the COVID-19 search Bank have you used? (select any that apply)	Responses	
	Number	%
Table of completed searches	64	46.4
Ready-made search strategies	48	34.8
Hints and tips	13	9.4
Other COVID-19 search initiatives	13	9.4

similar initiative, the main one being to remain open minded and non-judgmental, especially as there is always context and background to a search unknown to a reviewer. Another noted that it was important for the peer reviewers to have undergone the process of having their own searches critiqued; she herself felt that she had ‘proved herself’ once having her own submitted search peer reviewed and ‘*learnt to trust my own literature searching skills*’. It was felt that the buddy system, whereby the expert searchers worked in pairs to review searches, had also been key to making this project a success.

The expert searchers were asked what development needs there might be, and one recurring theme was training on giving feedback. Potential training topics identified for the wider library community based on the searches submitted included presentation of searches for different audiences and the use of search hedges.

Survey

There were 85 responses to the survey from NHS library service staff across England. In 2019, the last year for which figures are available, there were 1004 staff working NHS library services across England. This response represents a return rate of 8.5% for all NHS library staff. However, almost all searching undertaken by NHS library service is carried out by bands five and above of which there were 624 in 2019. If those responding to the survey were those staff actively involved in undertaking searches this represents a response rate closer to 14%.

Overall, 43 (54%) respondents reported they were users of the search bank, five (6%) were contributors and 31 (39%) were both users and contributors. Table 1 provides a breakdown of sections of the COVID-19 Search Bank by usage.

The majority of respondents, 51 (70.8%), reported they had used between 2–5 searches. 16 (22.2%) said they used 1 search and 5 (6.9%) used 6–10 searches. On reflection this question should have included an option to report

that no searches had been used as was pointed out in responses to the 'other' option in question 5.

The main limitation of the bank was its search functionality. Respondents reported they found it 'clunky' and that 'The problem I found with the search bank ironically was the presentation and searching. While I appreciate this was done in a hurry, in the longer term a suitable and robust hosting software would in my view enhance its accessibility, increase use and therefore its impact'.

A further limitation of the project was how quickly some searches could go out of date. Respondents reported that 'only the strategies are useful, the search itself is out of date pretty quick'.

When asked if they would like a permanent search bank created, post COVID-19, to enable the sharing of searches on other topics, the response was overwhelmingly yes (58 [77.4%] respondents). However, there was disagreement as to whether the best way forward was to create a bank for sharing searches on any topic (32 [42.7%] respondents) or creating search banks aimed at current/specific topics (26 [34.7%] respondents).

Out of necessity the search bank had been put together quickly and the team were interested to discover what users felt could have been done better, particularly if further search banks are to be developed. This was an open question and therefore elicited a wide variety of responses. The most reported two were that the search bank needed to provide a better user experience in terms of searchability and that the strategies were considered more useful than the searches themselves.

Responding to the open question of why they had contributed a search many stated that they did so because 'sharing is good' and they hoped they would save time and money for others. Other reasons included adding to the body of knowledge and as a means of getting involved in the national COVID-19 response.

Due to time pressures the team had not provided feedback on contributors' searches but were interested to know if this would be welcomed in future. 25 (69.4%) of those who had contributed searches reported they would like feedback but 11 (30.6%) said they would not. Among those who would have liked feedback the reasons given focused on improving individual search strategies and reassurance that they were doing what others would have done.

The final part of the survey asked respondents if they would be interested in becoming a peer reviewer and what training they would require. Of the 20 respondents (54.1%) who would be interested the main development needs were what to look for in a search and how to provide feedback. Respondents stated they would welcome working with another individual when peer reviewing and that feedback templates would help the process.

DISCUSSION

While the sharing of searches is not new, we believe this is the first published article to discuss this practice. One of the central drivers of the *Knowledge for Healthcare* framework is 'mobilising evidence and organisational knowledge' (NHS Health Education England, 2021). The HEE Knowledge and Library Services team were able to move quickly to respond to the developing situation using these principles, gathering volunteers and the search submissions, and is evidence of the buy-in from information professionals to the vision of Knowledge for Healthcare. Both the survey and interview responses demonstrated the strong ethos of collaboration in the NHS library community and a desire to contribute to the disaster response to the pandemic by sharing, saving others time and effort.

The NHS Library and Knowledge Services Value Proposition (EconomicsByDesign, 2020) reported that librarians save the time of health care professionals, and saving time was one of the main impacts identified by this project. Whilst the values of 'do once and share' are instilled in NHS librarians, the practical benefits and value of not duplicating effort and the time saved by librarians ensures that they can deliver additional services to clinicians and NHS managers.

Although there are a number of existing search banks, the paucity of published literature on the processes and value of these resources means there is no similar research to draw on. However, elements of the project do relate to areas where there is more literature available.

COVID-19 highlighted the importance of hedges when tackling a new topic area. We saw early development of hedges locally and nationally, with different objectives. These were used extensively by searchers submitting searches to the COVID-19 Search Bank. At the time of the project, there was no validated search hedge for COVID-19 and librarians used what terms they could glean from a variety of resources. With the unprecedented development of the pandemic and until the formal naming of COVID-19, this was not straightforward. Since our work began, an evaluated NICE COVID-10 search strategy became available (Levay & Finnegan, 2021) Whilst not yet validated, it has been extensively tested.

The institution of the COVID-19 Search Bank meant that librarians and information professionals were able to share entire search strategies and select hedges from strategies in order to inform their own search strategies. Bringing these together into a repository saved the time of information professionals in their response to the pandemic. The project found substantial variety in search practices and ways of presenting evidence search reports across the library community. Variation in search

practices included ranging from multiple synonyms to single terms only; non-use of thesaurus terms to a substantial number of relevant terms being used; and different use of pre-set limits. Presentation differences included the layout of results and how they were grouped; presence or absence of summaries and the level of detail; and the amount of information about the way the searcher had interpreted the question.

Thirty-seven searches were rejected on the grounds of quality. Almost a third of these had no search strategy provided. Of the remaining rejected searches, most had more than one issue identified. Most common was the absence of thesaurus terms (either important missing concepts or a complete absence of thesaurus terms) from the strategy. Almost as frequent was the absence of key words and phrases. Weaknesses in the COVID-19 element of the search were found in a fifth of rejected searches, which was disappointing given that COVID-19 search hedges were supplied on the search bank pages. In a few cases, the search strategy was not flawed as such, but did not appear to answer the question posed. Serious issues with the use of truncation and adjacency operators were identified in a small number of searches, sufficient to de-rail the search. Peer review provides one mechanism to address quality concerns, but it was outside the scope of this project to provide feedback to those who submitted searches. These findings about search quality align with other similar conclusions from Koffel and Rethlefsen (2016). The unique aspect of this research however is that it relates to the quality of searches conducted by information professionals rather than non-librarians.

Respondents from both the interviews and survey were uncertain of the need for a general search bank. They expressed the need for any future search banks to have a similar strong purpose. The feedback from both the survey and interviews indicated that search strategies were the most useful element with information inevitably quickly becoming out of date. Since our research was completed, a general search repository has been launched by CABI (Winks, 2021).

Limitations

A flaw in the survey design was identified after this was launched in that there was no specific option for respondents who had looked at the search bank but not used it; some respondents still provided feedback via the open-ended question options, however. There were also a relatively low number of survey respondents.

Another limitation of the study is that it has come from a project which was developed very rapidly as a

pragmatic response to an international disaster, and as such the evaluation carried out by practitioners was not pre-planned and there was no research protocol.

CONCLUSION

This was an excellent example of the collaborative working between NHS librarians and, between librarians and HEE.

Neither the survey or interviews validated the need or appetite for a non-topic-specific search bank. It was identified that any future search banks need a clear purpose as searches are otherwise too diverse. Search strategies were considered more useful as a resource than the searches themselves which quickly go out of date.

The main weakness of the project was found to be the lack of clearer guidance for contributors. Whilst this was due to the evolving nature of the initiative, the limited research available at the start of the pandemic, and that the group sought to take a pragmatic and responsive approach, clearer parameters would need to be in place for any future search bank.

The project identified that the quality of searches is variable, and that even competent searchers displayed a lack of confidence in their abilities. It was clear that in any future search bank initiatives feedback on searches and strategies submitted should be provided to critique work and provide suggestions. The peer reviewers additionally identified providing effective feedback to be one of the training and development needs for fulfilling this role.

All the peer reviewers involved in this initiative clearly felt it to have been a personally and professional rewarding process with positive impacts on their practice and other benefits such as networking with health librarians from outside their immediate networks. A key factor that was found to be beneficial was the 'buddy' system of working in pairs.

ACKNOWLEDGEMENTS

Our thanks to other librarians involved in this project: Richard Bridgen from Health Education England who constructed the COVID-19 database and provided us with the quantitative information for this article; Lisa Burscheidt and Amber Dunlop, additional expert searchers in the group, and Elaine Watson from the Brighton & Sussex University Hospitals NHS library team who ensured all relevant searches submitted to Knowledge Share were identified.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

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How to cite this article: Gorrington, H., Divall, P., Gardner, S., Gray, A., McLaren, A., Snell, L., Thackeray, E., Tocock, A., & Young, G. (2022). NHS librarians collaborate to develop a search bank peer reviewing and sharing COVID-19 searches - an evaluation. *Health Information & Libraries Journal*, 1–11. <https://doi.org/10.1111/hir.12444>

APPENDIX A

A.1 | COVID-19 Search Bank Interview Schedule

1. Why did you volunteer to become involved in this project?
2. What is the main thing you have learnt from your involvement?
3. What was difficult/challenging?
4. Is there anything you have done differently in your own workplace as a result of your involvement in this project?
5. What do you think needs to be in place for this to be scaled up?
6. Has your involvement in the project identified any personal training or development needs?
7. Has your involvement in the project identified any training or development needs which you would like to make the Knowledge for Healthcare CPD (Continuing Professional Development) group aware of?
8. If you were encouraging someone else to get involved in a similar project what would you share with them?
9. Is there anything else you would like to share about your involvement in this project?

APPENDIX B

B.1 | COVID-19 Literature Search Bank User and Contributor Survey—July 2020

1. In which Health Education England Region are you based?
 - o Part of a National Team
 - o London and South East (Kent, Surrey and Sussex)
 - o South West and South East (Thames Valley and Wessex)
 - o East of England and Midlands
 - o North East and Yorkshire and North West

2. Were you a contributor to or a user of the search bank?
 - Contributor only
 - User only
 - Both contributor and user
3. Which sections of the COVID-19 Search Bank have you used? (Select any that apply)
 - Table of Completed Searches
 - Ready Made Search Strategies
 - Hints and Tips
 - Other COVID-19 Search Initiatives
4. Approximately how many searches from the table of completed searches have you used?
 - 1
 - 2-5
 - 6-10
 - 11 or more
5. In what ways have you used the material? (Select any that apply)
 - Forwarded the results to my user
 - Used the strategy to plan my own search (make changes/additions to the strategy)
 - Used the strategy to run my own search (didn't make any changes)
 - Other (please specify)
6. How did using the search bank help you? (Select any that apply)
 - Confirmed prior knowledge or refreshed my memory
 - Gained new knowledge
 - Generated new ideas
 - Updated my skills
 - Gained new skills
 - Improved my confidence
 - Saved my time
 - None of the above
 - Other (please specify)
7. To your knowledge did your use of the search bank contribute to any of the following impacts? (Select any that apply)
 - Reduced risk or improved safety
 - Improved the quality of patient care
 - Saved money or contributed to financial effectiveness
 - More informed decision making
 - Contributed to service development or delivery
 - Facilitated collaborative working
 - Contributed to personal or professional development
 - None of the above
8. Would you like a permanent search bank, post COVID-19, created to enable the sharing of searches on other topics?
 - Yes - a general search bank for sharing all literature searches
 - Yes - search banks created for other current/specific topics
 - No
 - Not sure
9. What other features would have enhanced the search bank? Free text
10. Please confirm if you are completing this survey as a user only or a contributor and user. (This is to enable you to skip the questions specifically aimed at contributors).
 - User only
 - Contributor and user
11. Why did you contribute a search? Free text
12. Would you have liked feedback about your search?
 - Yes
 - No
13. If "Yes", what particular aspects of your search would you have liked feedback on? Free text
14. Would you be interested in being a peer reviewer?
 - Yes
 - No
15. If "Yes" what training or support would you require to become a peer reviewer? Free text
16. If you would be happy to be contacted at a future date to be asked about the impact of the search bank, with a view to being included in a case study, please provide your email address.