The Development of a Search Filter to Identify Literature about Patient and Public Involvement (PPI) in Health Research

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Background

PPI

The use of PPI in healthcare research is important because it leads to research that is more relevant to patients and their carers. PPI in research has expanded rapidly over the last 30 years, leading to a mass of literature that is difficult to locate; it generally does not form the focus of the research, it is reported inconsistently and the terminology used is variable. Researchers need to identify PPI literature for two main reasons: either they are seeking to identify how other projects used PPI in that subject area or they need to identify specific methods for using PPI.

Search filters

Search filters are individual search strategies that can be used in conjunction with a main search to narrow down the number of hits, focussing on the topic or type of information required and producing a more precise set of results. There is currently no validated set of search terms for identifying literature on PPI, and the medical subject headings assigned to this area on the main databases are either non-existent or ineffectual.

Methods

1. Development of the Gold Standard

We searched the PenCLAHRC user involvement group library and the Involve website for any records where patients were involved as part of the study team or for any journal articles about PPI in health research. We also searched the bibliographies of included papers and relevant systematic reviews, and hand-searched the journals Health Expectations and the International Journal of Consumer Studies from the last two years for further references for inclusion. We checked the inclusion of the records on Medline, PsycINFO and EMBASE before choosing which database would be used to design our filter.

2. Designing the filter

We divided the records up into 2 sets: a development set and a test set. The filter was designed in Medline (via OvidSp) using key words, phrases and medical subject headings taken from the development set. The performance of the filter was then assessed using the test set.

Table 1: Most frequent terms and phrases identified in the development set

Search terms	Sensitivity Number of key records (% retrieved)	Total number of records retrieved
MeSH (Medical Subject Headings)		
Consumer participation	34 (58%)	14548
Patient participation	17 (29%)	18396
Search phrases		
Public involvement	11 (19%)	344
Consumer involvement	10 (17%)	221
User involvement	9 (15%)	431
Participatory research	7 (12%)	1981
Patient participation	4 (7%)	1346
Patient involvement	3 (5%)	1084
Public participation	3 (5%)	461
Consumer participation	2 (3%)	233
Public engagement	2 (3%)	274
User participation	2 (3%)	131
Community engagement	1 (1%)	654
Community participation	1 (1%)	2125
Community involvement	1 (1%)	1166

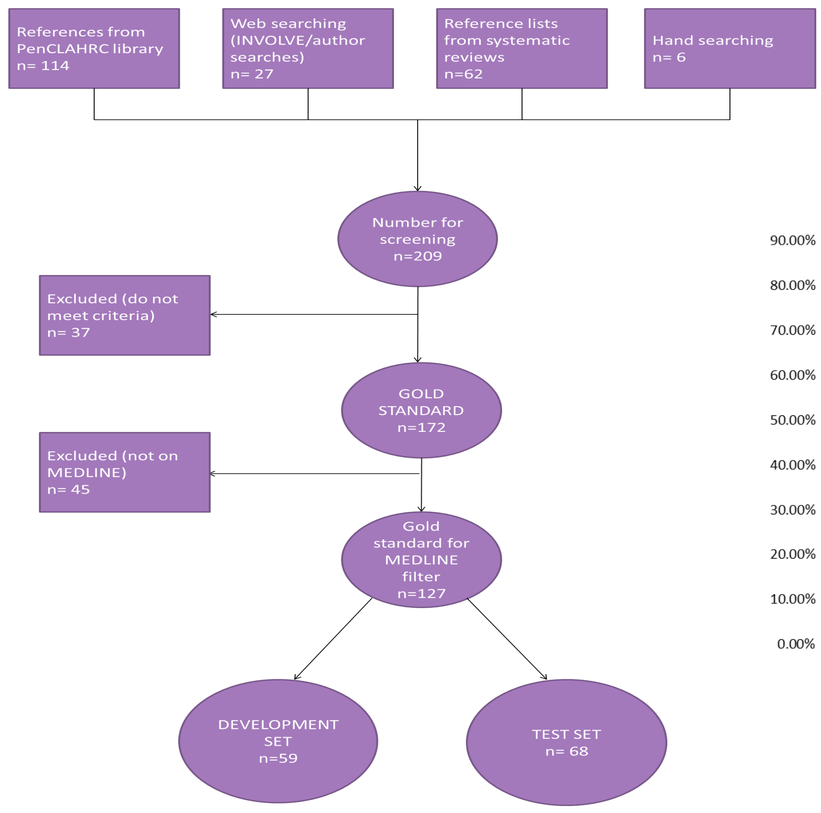
Table 2: Number of records generated using combinations of common terms

	Sensitivity Number of key records (% retrieved)	Total number of records retrieved
Combinations of search terms		
Participat* AND (patient* or lay or people or public or consumer* or user* or citizen*) AND (health or research)	29	49379
Involv* AND (patient* or lay or people or public or consumer* or user* or citizen*) AND (health or research)	44	73863
Engag* AND (patient* or lay or people or public or consumer* or user* or citizen*)AND (health or research)	16	15010
(Partners or partnership) and (health or research)	9	27929

Aim

To design a search strategy (filter) identifying literature where patient and public involvement (PPI) was used in research, and to test the strategy against a gold standard of papers

Fig. 1 Development of the Gold Standard



Graph 1 Coverage of references from Gold Standard across three major databases

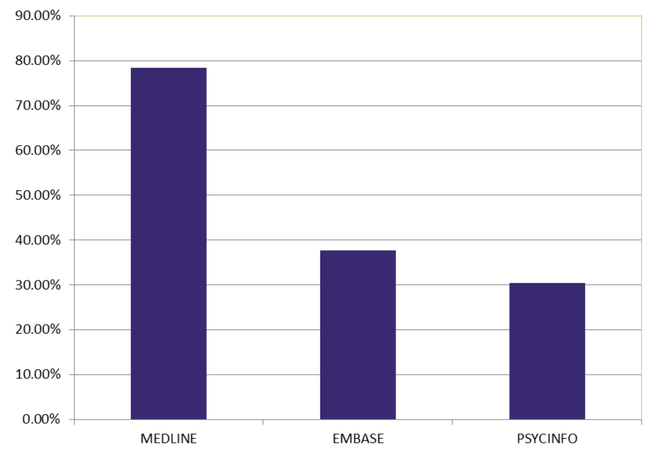


Table 3 Performance of the filter on the test set against the development set

	Number of references retrieved (%)
Development set	59/59 (100%)
Test set	67/68 (98.5%)

The filter designed for MEDLINE using the OvidSp platform

1 consumer participation/
2 patient participation/
3 1 or 2
4 (patient* or public or lay or people or consumer* or user* or citizen*).ti,ab.
5 (participat* or involv* or engag*).ti,ab.
6 (health or research).ti,ab.
7 4 and 5 and 6
8 (partners or partnership).ti,ab.
9 6 and 8
10 3 or 7 or 9

LIMITATIONS

- Due to a paucity of literature covering PPI, only a small number of references were used in the development of the filter
- The filter was developed for Medline via OvidSp and therefore would produce different results used with other databases.
- The filter is designed to be highly sensitive and therefore results in low precision when used alone.

FURTHER WORK

- To test the PPI filter in combination with specific health topics
- To expand the work to design filters for the other major databases and platforms, e.g. PubMed

CONCLUSION

We have designed a sensitive search filter for locating health research and methodological studies where PPI has been used. This filter will be useful for researchers and specialists focussing on specific health areas seeking to use PPI in their research.

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