

## **Librarian as co-author, co-reviewer and consultant: systematic review search service and advanced search skills consultant**

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### **Introduction**

The systematic review has become a standard research process in the health sciences and is also infiltrating into other subject areas. It is an essential tool that underpins the synthesis of medical literature for informed decision-making. The systematic review requires explicit and systematic methods that can be reproduced by others. It uses a scientific methodology that is designed to remove bias and comprehensively identify, appraise and synthesise relevant literature (1).

Librarians are ideally positioned to take part in many aspects of the systematic review process. It has been part of our duties for many years to perform literature searches and to teach others how to perform them. In many parts of our work we must also use appraisal and data management skills – two other key components of the systematic review process. The quality of the systematic review is heavily reliant on the finding of studies, as errors in the search process can affect the results by retrieving an incomplete and potentially biased range of evidence to review (2). The importance of including librarians or information specialists in the systematic review process has also been outlined in many studies, manuals and guidelines (3,4,5,6,7,8,9).

The need for librarian or information-specialist input in the systematic review process – as both searcher and educator – has made its presence felt at Alfred Health Library Services. It has grown from a low murmur of requests a decade ago, to a loud clamour in recent times.

### **Background**

The Alfred Health Library Service consists of The Ian Potter Library, which is situated at the Alfred campus, and the Health Sciences Library at the Caulfield campus. We also provide online services to our Sandringham hospital campus. The Ian Potter Library provides information services to the following institutions: The Alfred, Monash University, Baker IDI Heart & Diabetes Institute, Burnet Institute and Latrobe University. We also have a nursing research arm that is linked to Deakin University. Our clients range from undergraduate to postgraduate students, clinicians, researchers, scientists and university lecturers. Many of our clients have dual roles as both staff members and students undertaking further studies at Victorian and interstate universities.

The library service has been on the Alfred site for many decades but its current incarnation as a combined, multi-campus library service began in early 2002 when four separate libraries became one. Prior to that, each library offered services to its parent institution, namely Alfred Health, Monash University, Burnet Institute and Baker Institute. Eventually other institutions became involved with the library when their students began attending lectures and placements at Alfred Health sites. The amalgamated service was offered to a variety of clients with many different needs and abilities. Initially this service was offered in the traditional way with one-on-one training, traditional literature searches and the occasional group class.

After the first 18 months it became apparent that a more unified approach was required as the numbers of clients continued to grow. It was also evident that formalised database education

would save time and resources by targeting many in one hit. In the early 2000s the majority of our databases were provided via the OVID platform, so for many years we ran a general literature searching class as well as general library orientation classes. When CINAHL moved to the EBSCO platform, we decided to make our classes database-specific, and began offering more targeted training sessions. In the beginning our classes were offered monthly during the academic year (i.e. February to November), with semester breaks as attendance tended to dwindle during non-teaching periods. One-on-one training was still available to those unable to attend classes and/or needing specialised assistance.

	MEDLINE	CINAHL	EMBASE	COCHRANE	ENDNOTE	LIBRARY ORIENTATION / ER CLASS	ADVANCED SEARCHING	PSYCINFO
2010	64	10	30	21	129	34	N/A	N/A
2011	105	35	23	28	162	27	N/A	N/A
2012	56	21	16	33	163	23	16	N/A
2013	93	27	17	52	160	39	49	6
2014	134	63	41	63	145	19 plus 11* ER	95	16
2015 till 30/9/15	93	31	25	36	107	ER 38	65	3
TOTAL as of 30/9/15	545	187	152	233	866	LO 142 ER 49	225	25

In 2013 the library service underwent a review and it was decided that literature searches and one-on-one training would no longer be offered as they had been in the past. Instead it was decided to offer a more robust class schedule with both basic and advanced literature searching options, to encourage end-user ownership of learning. This method of training had been validated by previous experience, with clients wanting the same type of advice whenever they asked for one-on-one help. After deciding to increase the number of classes on offer, it was also decided to make it compulsory for people to attend basic database training before they could receive individual help. We found, more often than not, that clients wanted to learn how to do searches themselves. Making classes compulsory also clarified what sort of assistance was required when clients wanted individualised help, and more often than not it was for a systematic review.

### **Systematic review journey**

My journey as a reviewer, educator and consultant began many years ago. When I began at the Alfred Hospital in 1990, I was fortunate to have an employer who was both an excellent mentor and an expert searcher. From the beginning I was encouraged to analyse everything when it came to database searching and to question results both good and bad. I was also fortunate to attend courses in MeSH and databases that used Stairs commands. This early training became instrumental in developing my in-depth knowledge of how databases – particularly MEDLINE – worked. I was also privileged to complete my Masters degree at RMIT in the 90s, at a time when a certain lecturer ran an ‘advanced database searching’ unit that was not only superb hands-on practice, but further enhanced my knowledge of how different databases performed. As part of the Masters program I also undertook a semester of ‘end-user education’ with the faculty of Computing and Information Technology. Together these experiences gave me the tools and knowledge that I needed to become the searcher and educator that I am today.

I started training clients in database searching back in the day when we had only one computer with MEDLINE on CD-ROM. In the beginning it was only feasible to do one-on-one training. Later

with the advent of the internet and the move to a new library facility, we were able to have a computer training room in the library, where we could offer database classes to small groups. We also had the benefit of an education centre adjacent to the library with classroom and seminar spaces that the library also managed. This was and has continued to be used for large group training.

In 2007 I was asked to become a part of a systematic review (SR) team that were aiming to publish in the Cochrane library. I had worked with some of the team members in the past on searches for basic literature reviews; however, the demands of a Cochrane Systematic Review meant that a lot more work and expertise was required. My clients were genuinely concerned about missing studies and wanted to make sure that all the steps were done to the best of our abilities. With regard to the selection of databases and other sources, my clients relied upon me completely. After exploring their initial ideas, and through the development of the systematic review protocol, we came to the conclusion that it was a huge task to undertake the searching component of a Cochrane Systematic Review. The review team offered co-authorship when they realised the amount of work that was required – not only in the search process but also in the writing of methodology, maintenance of search logs, manuscript reviews and the continuous correspondence with the pertinent Cochrane editorial group. We also had to undertake to update the systematic review every two years, which has meant a commitment to investigate the ongoing suitability of the searching components of the SR, as well as rewriting various sections. A second Cochrane systematic review team invited me to join them in 2008, further increasing my skill levels and experience with systematic reviews.

#### **Advanced searching educator and SR consultant**

The initial experience with the two Cochrane Systematic Reviews and the subsequent systematic review teams that I worked with, informed the creation of my 'advanced search skills' class. The many skills I acquired during this process also allowed me to develop the ability to troubleshoot search problems as well as the ability to analyse research questions and assist team members to clarify their goals and objectives.

As I was also receiving so many requests for SR team involvement and consultation I realised I couldn't do it all. Not only was there a steadily growing number of researchers undertaking systematic reviews but universities were also encouraging their students to perform SRs as part of their postgraduate studies. In the last couple of years this has also extended to some medical undergraduates undertaking extra research subjects. As a result, I have made it compulsory for clients asking for my assistance with SRs to attend the advanced search skills class. Not only does it give the class attendants the skills they needed to get started on their SR search journey, but it also demonstrates the true nature of the systematic review searches. Many first-time reviewers underestimate the time and skill required to perform the searching components of the systematic review. Even reviewers that have completed SRs in the past discover that they may have missed certain components. For postgraduate students undertaking SRs as part of their degrees, the classes have proved invaluable for them to complete their SR projects. For many experienced researchers, it has helped them produce better quality searches and they have been able to complete the search components of their SR themselves. For others, it has led to a better consultation process whereby they meet with me purely to fine-tune and/or better direct the outcomes of their protocols and search strategies. (See Appendix 1 for 'Advanced search skills' class outline)

SR consultations vary from checking and improving clients' strategies to providing advice as to how to fine-tune research questions and how to identify inclusion and exclusion criteria. Sometimes the process of discussing their SR projects is enough to set them on the right path. The process of

doing all the searches that are essential for the systematic review, and the extensive skill-set and time commitment required, has meant that many review teams ask me to undertake the work for that component of the systematic review. Because of the increasing number of requests for this service, and in order to set boundaries in terms of service provision, I introduced the official Systematic Review Service.

#### **Systematic Review Service and SR co-author**

The need to manage the number and types of requests I was receiving, and the need to set service guidelines and boundaries, prompted me to introduce a formal application process for the systematic review service. I designed an SR service fact sheet and application form that outlined which activities and services would be undertaken by the librarian. These include: undertaking scoping searches; investigating different databases and resources for suitability; planning and undertaking all searches on identified databases, websites, and other resources such as grey literature; writing the methodology section of the review; creating EndNote libraries; undertaking search updates and final manuscript review. For some SR teams, I have also undertaken the process of study selection whereby I select studies according to the inclusion/exclusion criteria. The selection process is an important component of the systematic review and is a crucial aspect in the elimination of study selection bias. The SR service request form asks for details of the SR and the review team as well as pertinent topic information. The fact sheet and forms also state that the final selection of resources is to be left to the discretion of the librarian, as well as specifying that the librarian is to be made a co-author of the resulting publication. (See Appendix 2 for SR service application form)

As the service gained popularity we had to put certain restrictions on eligibility. We were receiving many requests from PhD students as well as others who, as it turned out, were undertaking SRs on their own. In these cases there were no other review team members so they wanted the librarian to be the second reviewer. It was decided that these requestors were ineligible for the service and instead they were encouraged to undertake the database classes and to make consultation appointments if and when required. Often these clients were able to be streamlined into specially tailored classes.

SR team members often still undertake the advanced search skills training but reach the conclusion that it is far better for me to undertake the work as the teams acknowledge the need for a high quality search especially when it comes to complex research questions. Their exposure to the advanced class also allows them to appreciate the level of knowledge and skills that I bring to the team and the resultant publications.

I have worked with many systematic review teams, including ones where the SR team has both interstate and international co-authors. Some review team meetings have meant that we need to meet at times when we are all awake at the same time. We have had video conferences and teleconference meetings where I explain the procedures that I use and answer any questions that may arise. The service has been very successful and has led to me being co-author in over a dozen systematic reviews. I have also become the 'SR guru' on campus and I receive daily requests for appointments to review people's searches. Requestors will usually email me their search strategies for advice. In many cases I encourage them to attend at least one of the classes that we run. For experienced researchers and/or systematic reviewers, I often suggest that they do my advanced search skills class, after which they always state they have learnt something new even though they have been searching for years.

## **Conclusion**

Being involved in systematic reviews and the provision of database classes, in particular the 'advanced search skills' class, has led to many benefits for the library, for the researchers and clients, and for myself as a professional.

### **Library service**

The library and its staff have benefited in many ways especially with the introduction of compulsory classes as a way of freeing time to undertake various projects, instead of time-consuming one-on-ones and general literature searches. Streamlining clients into classes and adopting more of a troubleshooting approach has led to more appreciation of our skills. The increased number of classes and the ability to adapt content to suit the types of attendees has also added to library staff skills. Indirect publicity of the many library resources and services has also been achieved, as these are promoted during and after class sessions. The profile of the library has also received a boost both with our parent organisation and the many partner organisations that we serve.

### **Researchers and library clients**

Delivery of the SR services, classes and consultations has led to opportunities for clients to develop their knowledge and skills in searching and in many cases empowers them with improved confidence in their ability to undertake the searches required for their reviews. A wide range of classes to choose from, and the option of tailored classes that address different skill levels, has given them more choices when juggling their busy schedules. Our commitment to tailoring and offering classes at times that suit our clients is of huge benefit and is greatly appreciated.

### **Myself and the profession**

The experience of working on various systematic review teams from different organisations and with such varied research projects has greatly expanded not only my skills in the use of familiar and unfamiliar resources, but has also influenced my ability to troubleshoot search problems that are presented to me for advice. It has also allowed me to interact with many personalities from varied backgrounds, permitting me to improve my skills as an educator, facilitator and consultant. It has also given me the opportunity to present workshops to different groups of people with a view to empowering others who wish to develop their skills in this area. The range of skills and expertise that I have been able to demonstrate through this whole process has also greatly benefited and/or improved how library clients view the library and librarians. I believe it has added a new appreciation of the skills and breadth of library staff knowledge and enhanced our professional credibility to our parent and partner institutions.

1. Cook DJ, Mulrow CD, Haynes RB. Systematic Reviews: synthesis of best evidence for clinical decisions. *Ann Intern Med.* 1997; 126(5): 376-380.
2. McGowan J & Sampson M. Systematic Reviews Need Systematic Searchers. *J Med Libr Assoc.* 2005 Jan; 93(1): 74–80.
3. Institute of Medicine. Standards for Systematic Reviews [online]. Available at: <https://iom.nationalacademies.org/Reports/2011/Finding-What-Works-in-Health-Care-Standards-for-Systematic-Reviews/Standards.aspx>. Accessed Oct 1, 2015.
4. Relevo R, Balshem H. Finding Evidence for Comparing Medical Interventions. Agency for Healthcare Research and Quality; January 2011. Methods Guide for Comparative Effectiveness Reviews. AHRQ Publication No. 11-EHC021-EF.
5. Rethlefsen ML, Murad MH, Livingston EH. Engaging Medical Librarians to Improve the Quality of Review Articles. *JAMA* 2014; 312(10): 999-1000.
6. Rethlefsen ML, Farrell AM, Osterhaus Trzasko LC, Brigham TJ. Librarian Co-authors Correlated with Higher Quality Reported Search Strategies in General Internal Medicine Systematic Reviews. *J Clin Epidemiol* 2015 Jun; 68(6): 617-26.
7. Petticrew, M & Roberts, H. Systematic Reviews in the Social Sciences: a practical guide. Oxford, Blackwell Publishing; 2006.
8. Gough D, Oliver S, Thomas, J. An Introduction to Systematic Reviews. London, Sage Publications; 2012.
9. Cochrane collaboration. Cochrane Reviews [website]. Available at: <http://www.cochrane.org/cochrane-reviews>. Accessed Oct 1, 2015.

## Appendix 1

### Advanced search skills class outline

Advanced Search skills for Systematic reviews	
Class Outline	
Part 1	
Search strategy creation	
<ul style="list-style-type: none"><li>• Plan the structure of your search - concept grids</li><li>• Database structure and how this impacts search success</li><li>• The difference between subjects and text-words</li><li>• Use "text mining" to discover useful Subject Headings and words/phrases</li><li>• Explore Subject Hierarchies such as the MeSH tree structure</li><li>• Use Boolean and Proximity Operators effectively</li><li>• Use study types to limit your retrieval eg: RCTs, CCTs, Cohort Studies etc.</li><li>• Beware of limits: Humans problem (subtract animals instead)</li></ul>	
Part 2	
<ul style="list-style-type: none"><li>- Search example in Medline</li></ul>	

Concept Grid		
Concept 1 Patient or Population	Concept 2 Intervention	Concept 3 Study types
Subject headings <ul style="list-style-type: none"><li>- found in Medline</li><li>- found in Embase</li><li>- found in Database X</li></ul>	Subject headings <ul style="list-style-type: none"><li>- found in Medline</li><li>- found in Embase</li><li>- found in Database X</li></ul>	Subject headings <ul style="list-style-type: none"><li>- found in Medline</li><li>- found in Embase</li><li>- found in Database X</li></ul>
Textwords or phrases to be searched in <ul style="list-style-type: none"><li>- Title</li><li>- Abstract</li><li>- Other fields as necessary</li></ul>	Textwords or phrases to be searched in <ul style="list-style-type: none"><li>- Title</li><li>- Abstract</li><li>- Other fields as necessary</li></ul>	Textwords or phrases to be searched in <ul style="list-style-type: none"><li>- Title</li><li>- Abstract</li><li>- Other fields as necessary</li></ul>

## Subject searching versus Textword searching

WORD	DEFINITION
Subject Heading	<ul style="list-style-type: none"><li>• A specific term that describes the topic or topics that are being discussed in the paper or article.</li><li>• These words are found in the Subject classification systems of different databases eg: MeSH in Medline, Emtree in Embase</li><li>• Controlled Language - means you are covered for spelling variations such as American vs British spelling and singular vs plural spelling etc</li></ul>
Textword	<ul style="list-style-type: none"><li>• A word or phrase that appears in the text of a field.</li><li>• These words can appear within the text of the Title or the Abstract of the papers or articles.</li><li>• Other fields can also be searched if required</li><li>• uncontrolled vocabulary which means that you will have to determine different spellings and different endings for words. Textwords usually require the use of truncation and wildcard symbols</li></ul>

## Search strategy creation cont.

How to find the right mix of terms for the search

- Perform text mining on "gold set" of references – this is where the majority of your clues will come from for the search creation
- Investigate the subject tree structures and scope notes for each database
- Create a concept map of terms - both subject headings and phrases
- Test Subject headings, words and phrases against each other to determine suitability
- Test proximity searches



## Text Mining example

<b>Title</b>	Effect of <b>aerobic exercise training</b> on cardiovascular parameters and CD4 cell count of people living with <b>human immunodeficiency virus/acquired immune deficiency syndrome</b> : a randomized controlled trial.
<b>Source</b>	Nigerian Journal of Clinical Practice. 17(5):543-8, 2014 Sep-Oct.
<b>MeSH Subject Headings</b>	<p>*Acquired Immunodeficiency Syndrome/ep [Immunology]          *Acquired Immunodeficiency Syndrome/pp [Physiopathology]          Acquired Immunodeficiency Syndrome/tb [Therapy]          Blood Pressure          CD4 Lymphocyte Count          *Exercise/ph [Physiology]          *Exercise Therapy          Nigeria          Oxygen Consumption</p>
<b>Abstract</b>	<p><b>OBJECTIVE:</b> Despite the significant positive effect of Highly Active Antiretroviral Therapy on physical and psychosocial well-being of people living with <b>human immunodeficiency virus/acquired immune deficiency syndrome (HIV/AIDS) (PLWHA)</b>, decreased physical activity and its associated cardiovascular risk still pose some consequences for health and general well-being. This study investigated the effect of an 8 week <b>aerobic exercise training</b> on cardiovascular parameters and CD4 cell (T-cells) count of <b>PLWHA</b>.</p> <p><b>MATERIALS AND METHODS:</b> This randomized controlled trial recruited 30 age matched <b>PLWHA</b> who were randomly assigned into <b>exercise</b> group (EG) (n = 15) and control group (CG) (n = 15) respectively. The <b>PLWHA</b> were patients receiving treatment in President's Emergency Plan for AIDS relief at the <b>HIV</b> clinic of the University of Nigeria Teaching Hospital, Nigeria. The EG in addition to conventional therapy received moderate intensity continuous <b>exercise training</b> (60-79% of the maximum heart rate [max]) of between 45 and 60 min, 3 times/week for 8 weeks, while the CG received conventional therapy involving antiretroviral therapy and counseling only. Systolic blood pressure (SBP), diastolic blood pressure (DBP), maximum oxygen uptake (VO2 max) and CD4 cell count were assessed at baseline (week 1) and week 8 respectively. Analysis of co-variance and Pearson correlation tests were used in data analysis.</p> <p><b>RESULTS:</b> Findings of the study revealed a significant effect (ANCOVA test) of moderate intensity continuous <b>exercise training</b> program on SBP, DBP, VO2 max and CD4 cell count at P &lt; 0.05. Changes in VO2 max significantly correlated (Pearson correlation test) with changes in CD4 cell count (r = 0.528) at P &lt; 0.05.</p> <p><b>CONCLUSION:</b> Moderate intensity <b>aerobic exercise</b> is an effective complementary therapy in lowering blood pressure and increasing CD4 cell count in <b>PLWHA</b>.</p>

## Subject Hierarchies and Scope notes

[-] <input type="checkbox"/> Retrovirus Infections	768	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Arbovirus Infections	116	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
[-] <input type="checkbox"/> Debrunavirus Infections	103	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
[-] <input type="checkbox"/> Lentivirus Infections	915	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Equine Infectious Anemia	476	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Feline Acquired Immunodeficiency Syndrome	838	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
[-] <input checked="" type="checkbox"/> HIV Infections	10646	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Acquired Immunodeficiency Syndrome	70220	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> AIDS Arteritis, Central Nervous System	31	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> AIDS-Associated Nephropathy	687	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> AIDS Dementia Complex	3449	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> AIDS-Related Complex	1962	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> AIDS-Related Opportunistic Infections	19840	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> HIV-Associated Lipodystrophy Syndrome	1132	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> HIV Enteropathy	120	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> HIV Stereopsychosis	21631	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> HIV Wasting Syndrome	921	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

[-] <input type="checkbox"/> Physical Therapy Modalities	28792	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
[-] <input type="checkbox"/> Animal Isolated Therapy	150	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
[-] <input type="checkbox"/> Balneology	5467	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Drainage, Postural	194	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
[-] <input type="checkbox"/> Electric Stimulation Therapy	15408	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
[-] <input type="checkbox"/> Exercise Movement Techniques	402	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
[-] <input checked="" type="checkbox"/> Exercise Therapy	27401	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Motion Therapy, Continuous Passive	588	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Muscle Stretching Exercises	1027	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Piloelastic Exercise	113	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Resistance Training	2832	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Scope Note for: Exercise Therapy

## MeSH HEADING: EXERCISE THERAPY

**SCOPE:** A regimen or plan of physical activities designed and prescribed for specific therapeutic goals. Its purpose is to restore normal musculoskeletal function or to reduce pain caused by diseases or injuries.

**NOTE:** EXERCISE is also available

## REFERENCES:

## See Related:

SPORTS  
 EXERCISE  
 EXERCISE MOVEMENT TECHNIQUES

## Used For:

therapies exercise  
 exercise therapies  
 therapy exercise  
 exercise therapy

## Proximity Searching tests

▼ Search History (9 searches) (close)					View Saved	
<input type="checkbox"/>	#	Searches	Results	Search Type	Actions	
<input type="checkbox"/>	1	exercise training.ti.	4141	Advanced	+ Display	More ➤
<input type="checkbox"/>	2	{exercise adj1 training}.ti.	4220	Advanced	+ Display	More ➤
<input type="checkbox"/>	3	2 not 1	79	Advanced	+ Display	More ➤
<input type="checkbox"/>	4	{exercise adj2 training}.ti.	4501	Advanced	+ Display	More ➤
<input type="checkbox"/>	5	4 not 2	281	Advanced	+ Display	More ➤
<input type="checkbox"/>	6	{exercise adj3 training}.ti.	4747	Advanced	+ Display	More ➤
<input type="checkbox"/>	7	6 not 4	246	Advanced	+ Display	More ➤
<input type="checkbox"/>	8	{exercise adj4 training}.ti.	4895	Advanced	+ Display	More ➤
<input type="checkbox"/>	9	8 not 6	148	Advanced	+ Display	More ➤

Remove Selected Save Selected | Combine selections with:

Save Search History

## Part 2

### Search strategy example in Medline


#### Final Notes:

The search strategy for electronic databases should be described in sufficient detail in a review that the process could be replicated.

The following information should be included for each electronic bibliographic database each time it is searched, including CENTRAL and specialized registers:

- Title of database searched (e.g. MEDLINE)
- Name of the host (e.g. Ovid / Ebsco)
- Date search was run (month, day, year)
- Years covered by the search
- Complete search strategy used, including all search terms
- The absence of any language restrictions

Appendix 2



## The Ian Potter Library - Systematic Review Search Service

Collaborate with expert searchers to publish your systematic review. In addition to our resources and databases, The Ian Potter Library has knowledgeable staff to guide you through this evidence-based process. Please contact the Library at [library@alfred.org.au](mailto:library@alfred.org.au) to learn more. Systematic review collaboration may include:

- Targeting specific databases and other relevant and accessible resources to be searched
- Identifying and creating database-specific search strategies using a combination of subject headings and textwords/keywords to maximize precision and recall
- Conducting the literature searches on identified resources
- Reference checking
- Delivering the results suitable for input into Endnote and/or creating Endnote libraries for results
- Performing search updates in selected databases
- Recommending MeSH terms and keywords for article publication

Once the literature search is completed, the librarian will write the literature search methodology section for the submitted manuscript, provide detailed tables of all search strategies, maintain records of search results and search logs, and follow up with alerts and updates as needed. Librarians are to be listed as **co-authors** on systematic review collaborations.

The minimum amount of time for a comprehensive systematic review literature search is **one month**.

**Privacy statement-**  
**Personal information collected on this form is used solely to administer & provide library services and for no other purpose. If you have any questions about the collection or use of the information, please contact Lorena Romero**  
[L.Romero@alfred.org.au](mailto:L.Romero@alfred.org.au)

**All search requests and their results will be kept confidential and any information will only be provided to the persons specified by the requestor.**

**Make a Request**  
Please complete the following form and submit to: [L.Romero@alfred.org.au](mailto:L.Romero@alfred.org.au)

<b>SYSTEMATIC REVIEW SEARCH SERVICE REQUEST</b>	
<b>Contact Information</b>	
Date:	
Name:	
Position Title:	
Department & Institution:	
Contact number(s):	
Email:	
Head of Unit:	
<b>Author Information</b>	
Principle author's name and institution	
2 <sup>nd</sup> author name and institution	
3 <sup>rd</sup> author name and institution	
4 <sup>th</sup> author name and institution	
<b>Proposed Title of Systematic Review</b>	
<b>Topic Details</b>	
Please summarize the topic of this systematic review.	
<b>Reason for Systematic Review</b>	
Why do you want to conduct this review?	
<b>Where will the Systematic Review be published?</b>	

<b>Funding/Sponsorship</b>	
Are there any grants/sponsors involved with this review?	
<b>Relevant Publications</b>	
Are you aware of any articles already published on your topic? If there are more than 4 citations please attach details of others.	
Citation:	
Citation:	
Citation:	
Citation:	
<b>Relevant databases</b>	
Please list relevant resources that you would like to be searched. Note that the librarian will make the final recommendation of appropriate resources.	
<b>Inclusion/Exclusion criteria</b>	
Please briefly list any inclusion/exclusion criteria to be considered e.g.: Publication years, no animal studies, ages of participants, English only studies, intervention settings [community vs. hospital; acute vs. rehab etc.]	
<b>Study Designs</b>	
Please list type of study designs required eg: Randomized Controlled Trials, Controlled Trials, Cohort Studies, Case Control Studies, Before and After studies etc.	
<div style="border: 1px solid black; padding: 5px;"><i>I, _____ (your name), understand the librarian assigned to this systematic review will be credited as a co-author on the final publication.</i></div>	