

INTERMEDIATE MEDLINE

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If you require this information in an alternative format (i.e. large print, Braille or audio format), please contact any library enquiry desk or telephone (0113) 343 4096 and staff will make the necessary arrangements.



Introduction

This workbook shows you how to carry out searches in the Medline database but the principles apply to all other databases on the OVID platform, such as:

- PsycInfo for the psychological, social and behavioural aspects of healthcare
- EMBASE for drugs and pharmacology, biomedicine including biomedical instrumentation
- AMED for alternative therapies and complementary medicine
- Global Health for international public health literature

Bibliographic databases like Medline contain records of information about journal articles. You can search inside databases to find articles on your topic of interest. Medline is a major database covering medicine, dentistry and some nursing material published since 1949.

Note: it is possible to “cross search” multiple databases within OVID simultaneously, by ticking more than one database option on the opening menu – however in this mode you will not be able to access some of the advanced features of each database – for example, the option to search the database(s) using subject headings – and it will interfere if you planned to export your results to software such as EndNote.

Learning outcomes

By the end of this workbook, you should be able to:

- Access OVID databases via the Library website
- Search for references using a variety of keyword search techniques
- Combine your search results
- View and save your results
- Access databases from off-campus

About this workbook

- Things that you need to type are displayed in **Courier New** bold font
- Instructions assume that you are using the Internet Explorer browser (the IT supported web browser), but you can use any web browser
- Note this workbook does not cover searching using subject headings (MeSH terms). If you need to carry out a more detailed search you should refer to the advanced level database workbooks on your subject page. They explain how to search using a combination of subject headings and keywords – a more comprehensive technique suitable for up to systematic review level.

1. Before you start

This workbook aims to teach you how to use keywords (words or phrases) to find journal articles on a particular topic. If you need to carry out a more comprehensive search using subject headings (MeSH) in combination with keywords, see the advice on page 2 under 'About this workbook'.

Throughout this workbook, you will learn how to use keywords to find articles to answer a particular question:

“Can cognitive behavioural therapy help to improve self esteem in people with eating disorders?”

Although you might not be interested in this particular topic, the guided example will teach you the principles behind the literature searching process. You can then apply the same skills to search for articles on your own topic.

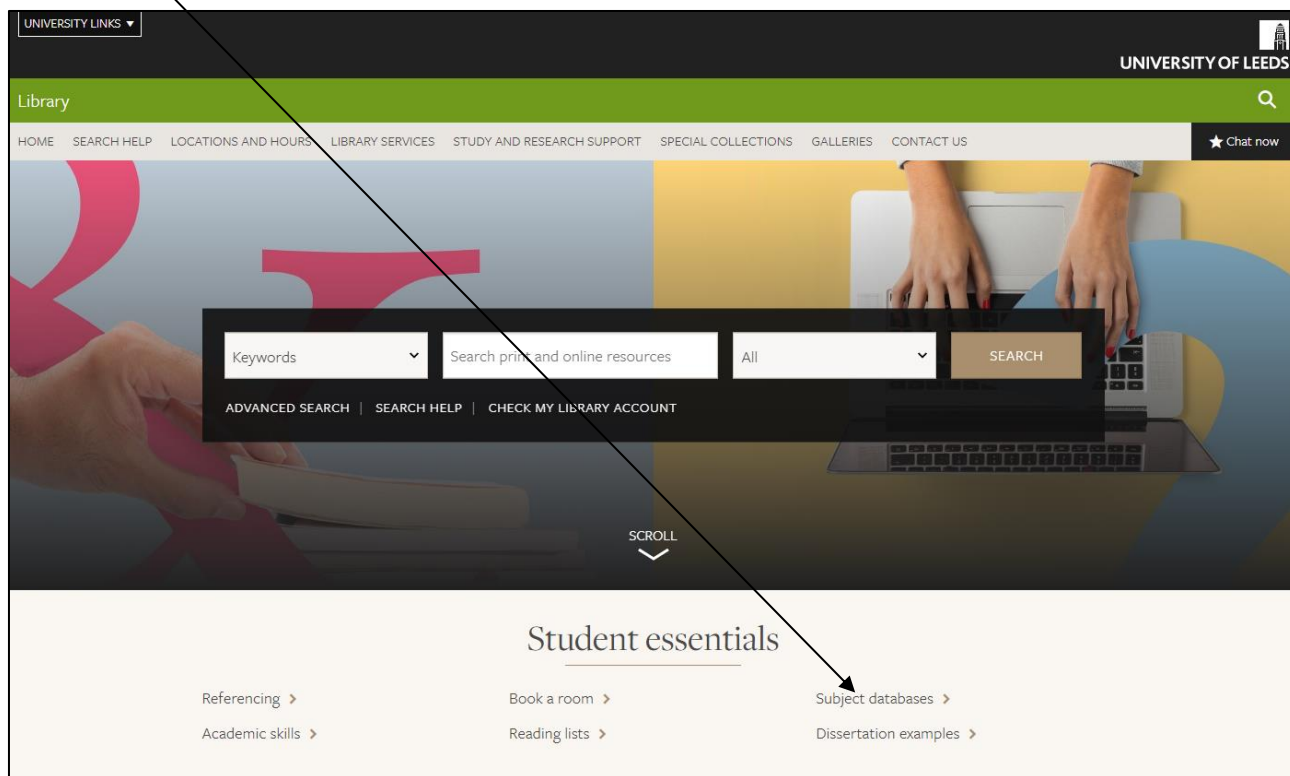
a. Logging in

This example uses the Medline database, but the same principles apply to the other databases in the OVID suite (see page 2).

Exercise 1 – Getting in to Medline

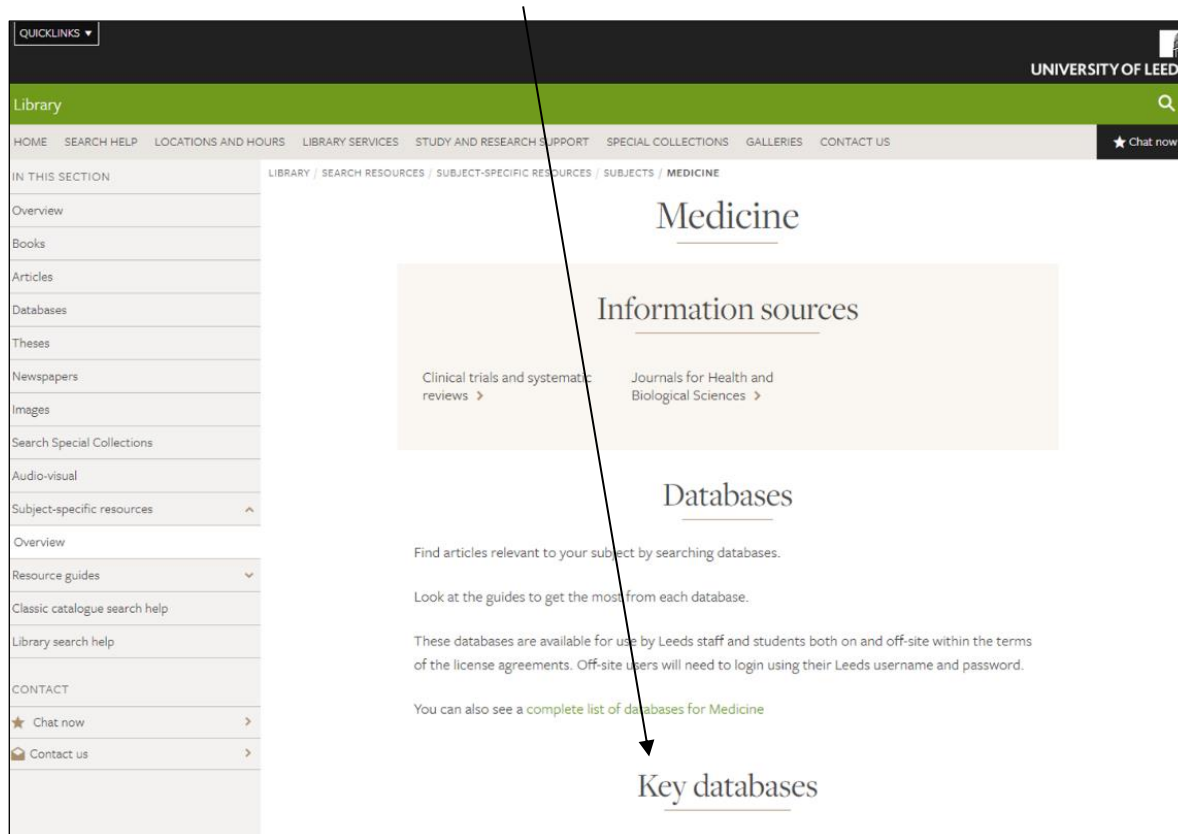
To access the database, go to the Library's homepage at <https://library.leeds.ac.uk/> and click on

Subject databases. This contains a bank of useful resources to help you with your studies.



You can view databases relevant to your studies by selecting your subject from the subsequent list.

Scroll down the page to find your **Key databases**.



NOTE Medline is not listed on the key databases page for every subject. If Medline is not on your own subject's key databases page, you can find it on the list of key databases on the Medicine subject resources page.

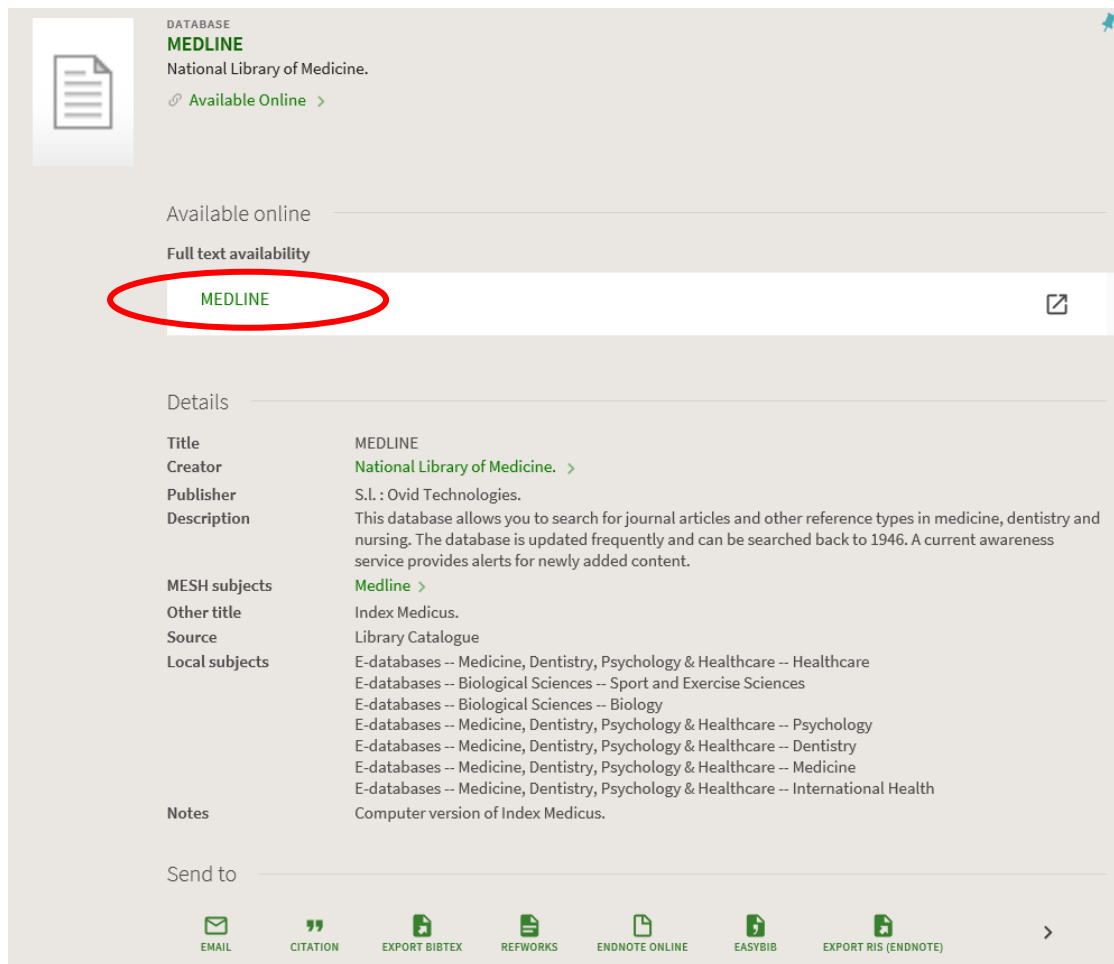
Your key databases page provides you with a list of databases which have been chosen as the most likely to be relevant for your subject. It's a good idea to browse through them and read their descriptions to decide which ones are relevant for your studies.

As this workbook looks at Medline, select Medline from the list of databases by clicking on the green link. The entry will look like this:

Medline

Search for journal articles and other reference types in medicine, dentistry and nursing, including biomedicine, medicine, nursing, dentistry, allied health, pre-clinical sciences. This includes material from across the biological and environmental sciences, psychology, and chemistry. The database is updated frequently and can be searched back to 1950. A current awareness service provides alerts for newly added content.

Next, on the Library search page click on **Medline**.



DATABASE
MEDLINE
National Library of Medicine.
[Available Online >](#)

Available online
Full text availability
MEDLINE

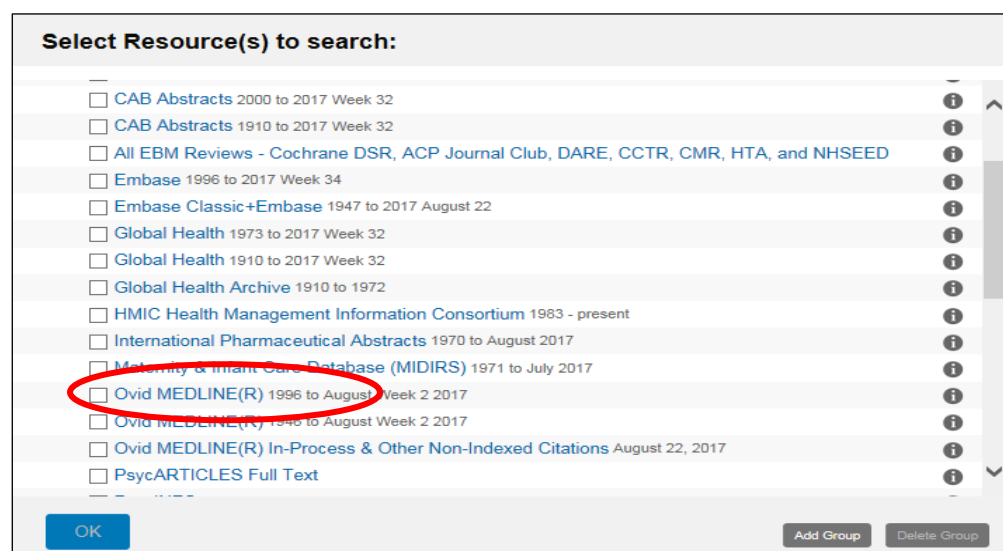
Details

Title: MEDLINE
Creator: [National Library of Medicine. >](#)
Publisher: S.I. : Ovid Technologies.
Description: This database allows you to search for journal articles and other reference types in medicine, dentistry and nursing. The database is updated frequently and can be searched back to 1946. A current awareness service provides alerts for newly added content.
MESH subjects: [Medline >](#)
Other title: Index Medicus.
Source: Library Catalogue
Local subjects: E-databases -- Medicine, Dentistry, Psychology & Healthcare -- Healthcare
E-databases -- Biological Sciences -- Sport and Exercise Sciences
E-databases -- Biological Sciences -- Biology
E-databases -- Medicine, Dentistry, Psychology & Healthcare -- Psychology
E-databases -- Medicine, Dentistry, Psychology & Healthcare -- Dentistry
E-databases -- Medicine, Dentistry, Psychology & Healthcare -- Medicine
E-databases -- Medicine, Dentistry, Psychology & Healthcare -- International Health
Notes: Computer version of Index Medicus.

Send to
EMAIL CITATION EXPORT BIBTEX REFWORKS ENDNOTE ONLINE EASYBIB EXPORT RIS (ENDNOTE)

Depending on where you are, e.g. off-campus, you may be required to login in with your IT username and password.

Now click on the link to **OVID MEDLINE (R) 1996 to ... [current year]** in the list of databases



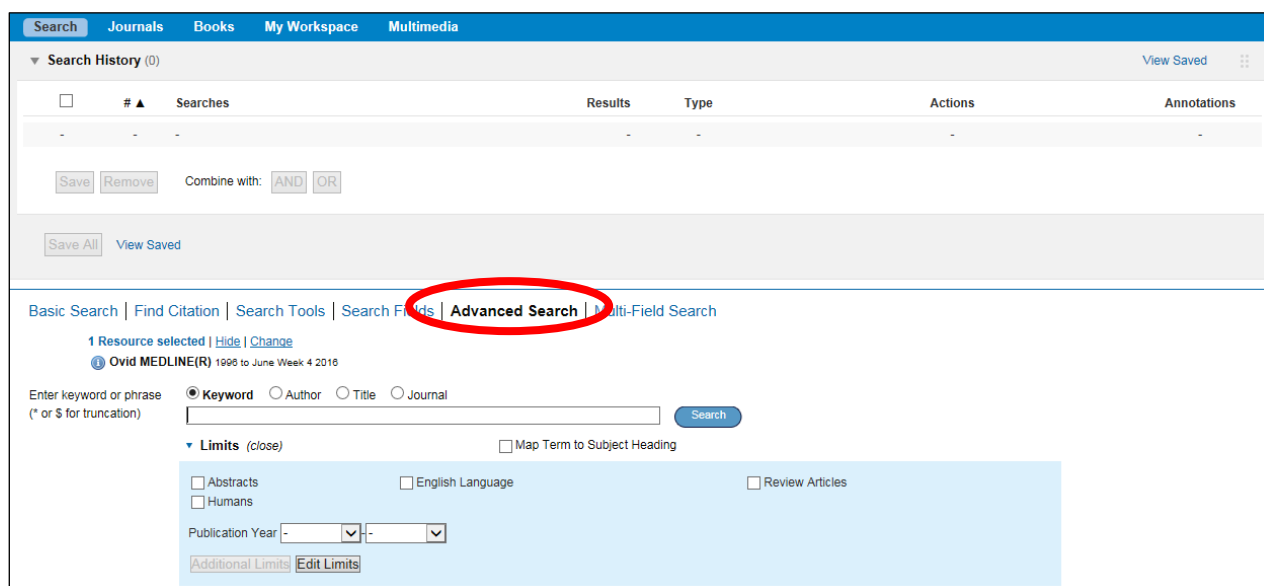
Select Resource(s) to search:

- ☐ CAB Abstracts 2000 to 2017 Week 32
- ☐ CAB Abstracts 1910 to 2017 Week 32
- ☐ All EBM Reviews - Cochrane DSR, ACP Journal Club, DARE, CCTR, CMR, HTA, and NHSEED
- ☐ Embase 1996 to 2017 Week 34
- ☐ Embase Classic+Embase 1947 to 2017 August 22
- ☐ Global Health 1973 to 2017 Week 32
- ☐ Global Health 1910 to 2017 Week 32
- ☐ Global Health Archive 1910 to 1972
- ☐ HMC Health Management Information Consortium 1983 - present
- ☐ International Pharmaceutical Abstracts 1970 to August 2017
- ☐ Maternity & Infant Care Database (MIDIRS) 1971 to July 2017
- ☒ Ovid MEDLINE(R) 1996 to August Week 2 2017
- ☐ Ovid MEDLINE(R) 1946 to August Week 2 2017
- ☐ Ovid MEDLINE(R) In-Process & Other Non-Indexed Citations August 22, 2017
- ☐ PsycARTICLES Full Text

OK Add Group Delete Group

Note: you can search back as far as 1946 if you need to.

During this workbook you will be searching on the **Advanced** screen (below) as this is the only screen that allows you to search for exact words or phrases and combine them using the AND + OR buttons.



The screenshot shows the Ovid MEDLINE(R) Advanced Search interface. At the top, there are tabs for Search, Journals, Books, My Workspace, and Multimedia. Below these is a Search History section with a table showing search results. The 'Advanced Search' tab is highlighted with a red circle. Below the search history, there is a search bar with a 'Search' button. The search bar has a dropdown menu for 'Limits' and a 'Map Term to Subject Heading' checkbox. The 'Limits' section includes checkboxes for Abstracts, Humans, English Language, and Review Articles. There is also a 'Publication Year' dropdown menu. The interface is clean and professional, with a blue header and a white background.

2. Breaking down your question

To perform an effective keyword search, you need to start by breaking down your research question into its main topics.

In this workbook remember we are looking for evidence to find out whether cognitive behavioural therapy can help improve self esteem in people with eating disorders.

In this case our main topics are:

1. **cognitive behavioural therapy**
2. **self esteem**
3. **eating disorders**

The other words in the research question are less important and don't need to be searched for.

Here's the process:

1. First we will search for articles about **cognitive behavioural therapy**
2. Then we will search for articles about **self esteem**
3. Then we will search for articles about **eating disorders**
4. Finally, we will combine these 3 sets of results using the **AND** button. This will leave us with one set of articles that contain **all** your topics together

Concentrating on one part of your question at a time and entering all those search terms separately means that the structure of your search strategy is much easier to follow and it is much simpler if you later decide to delete one stage of your search.

Note: When navigating around the database and viewing references, try to avoid using the **Back** and **Forward** buttons inside your browser as these can mean you lose selected references, or at worst

parts of your search. Use the navigation buttons **Next>**, **<Previous** and click the **Search** tab to get to the main search page again.

3. Searching by keyword

Searching by keyword enables you to type in a word or phrase and the database will bring back any references where there is an **exact match** in the title or abstract (summary) fields.

Note – although this sounds very straightforward, there are a number of issues to be aware of:

1. The same topic (whether it's a drug, a condition etc) can often be referred to in more than one way. If you only search for it one way you will miss articles that refer to it in a different way (cancer, carcinoma etc) – more about this later
2. Words that you might be interested in can have variations, perhaps in the spelling (e.g. British versus American) or different endings (e.g. depressed, depression, depressive etc) that could be of interest – more about this later as well
3. Finally, check your spelling – especially if you are getting zero results! Remember the database will only bring back exact matches for what you type in

Keyword searching brings back references where the words or phrases you type in appear primarily in an article's **title** or **abstract**.

This can mean that although your topic is mentioned, it is not necessarily a major theme of the article.

You will need to make a judgement about how far you try to define the topics you are interested in – this often depends on why you are carrying out the search. Under some circumstances it may be appropriate to stick to one major way of defining a topic, but if you're trying to be more comprehensive you should aim to think of and include as many synonyms as possible.

Spend a few moments thinking about the different ways our topics could be referred to in the literature and list them below. Consider any alternative spellings (American versus British), plurals and abbreviations.

This stage is vital. If we were looking for papers about postnatal depression and only searched using that term, we would miss the articles that used the alternative term 'postpartum depression'.

How else might **cognitive behavioural therapy**, **self esteem** and **eating disorders** be referred to?

Include even slight variations – otherwise your search results will exclude them.

How many can you think of? List them here: (if you get really stuck, refer to the appendix of this document for some ideas)

TOPIC 1 – cognitive behavioural therapy	TOPIC 2 – self esteem	TOPIC 3 – eating disorders
?	?	?
?	?	?
?	?	?

4. Truncation and wildcards

To help save you some time and effort, there are some keyword search tools that look for variants of words. These are known as **truncation** and **wildcards**. Each software supplier uses their own set of symbols, but in the OVID SP databases the following apply:

- * is used to truncate words, e.g. depress* will find depressed, depression, depressive etc
- # is used to search for a variable single character, e.g. organi#ation will find organisation and organization
- ? is used to search for a single character, or no character at all. This is very useful for some British and American spellings, e.g. orthop?edics will find both orthopaedics and orthopedics

Look at the list of words you've created – can you find a suitable use for truncation or wildcards? Consider using the variation **therap*** to bring back papers containing 'therapy' but also 'therapies'.

Note: Beware of truncating words too far, as you may find too many unrelated words. For example if you were searching for legal aspects of medicine, truncating legal to leg* would also find articles about legs, legacy etc.

Exercise 2

Now it is time to enter your words and phrases into Medline, one at a time. First, check the database is showing the Advanced Ovid Search screen and is ready to carry out keyword (not subject heading) searches.

Enter the first word or phrase you thought of for topic 1 and click on **Search**.

Repeat for **all** the other terms you came up with for topic 1, entering them into the database one at a time and clicking Search after each one.

Notice how the **number of results you find each time varies significantly** – if you don't search using a range of terms you will miss some key papers.

Exercise 3

Now do exactly the same for topic 2, searching for these one at a time as well.

Exercise 4

Now do exactly the same for topic 3, one at a time.

Note: To delete any of your searches, tick individual boxes (or the one at the top to select them all) and click **Remove**.

We'll look at how to use the AND + OR buttons to combine these results a little later.

5. Adjacency searching

Another useful **keyword** search technique is called **adjacency searching**. This is useful if you want to look for papers where your words might appear NEAR each other rather than only right next to each other. To do this, separate your words with **ADJn** where **n** is the number of major words **MINUS 1** that you will allow to appear **between** your words.

For example, searching for **physician ADJ3 relationship** will find the words physician and relationship within **TWO** major words of each other in any direction – and would find many more papers than just searching for the specific phrase 'physician relationship'. Using this technique would retrieve papers with phrases like "physician patient relationship", "patient physician relationship", "relationship of the physician to the patient" and so on.

Medline does not count **stop words** such as in, on, and, the or they etc in the ADJ number so your target words may well be even more than 2 words apart (but no more than 2 **major** (not stop) words apart).

So, following the database's adjacency searching rules **ADJ(n-1)** where **n** = the number of major words to appear between your words:

- ADJ searches for both terms next to each other in the order as typed.
- ADJ1 searches for both terms next to each other in either order.
- ADJ2 searches for both terms and up to **one** word in between them
- ADJ3 searches for both terms and up to **two** words in between them
- ADJn searches for both terms and up to **(n-1)** words in between them

Note: the higher the ADJ number you use, the further apart your keywords will be from each other. When this happens, you can start to lose the context you wanted. It is worth experimenting with different numbers and spot checking your results for relevance.

6. Combining your searches

Now that you know how to find some articles, you need to know how to **combine** your search results to be left with one final set of papers that contain **all** your topics together.

Combining requires the use of the Boolean Operators AND + OR. These options appear as buttons on the search screen.

Exercise 5

Look at your **Search History** table. This shows you every search you have carried out so far. [You may want/need to press the 'Expand' button on the right hand side to see all of your results]

Identify all the searches you carried out about **cognitive behavioural therapy** and tick the box to the left of every set.

Click on the **OR** button

This produces a combination set at the bottom of your search history table, containing all results about topic 1 all together.

Now tick every set of results you generated about topic 2 **self esteem** and combine them using OR as well.

You should now have a second combination set at the bottom of your search history table.

Now tick every set of results you generated about topic 3 **eating disorders** and combine them using OR.

You should now have a third combination set.

The final stage is to combine your combination sets. To do this, just tick your three combination sets – but this time combine them by clicking on the **AND** button.

This narrows the search to leave you with one final set of results that contains all your topics together now.

Concentrating on one part of your question at a time and entering all those search terms separately means that the structure of your search strategy is much easier to follow and it is much simpler if you later decide to delete one stage of your search.

Have a look through your final set of results – either by clicking on Display for that set or by scrolling down.

Do they help you answer your research question?

Your results will all mention all your topics, but not necessarily in the context you want; you will now need to browse the results and read the abstract for each result to find out whether it's going to be useful.

Sometimes you will need to click the **Complete Reference** link for a reference to see exactly where your search terms appear in full – they should appear highlighted in colour to help you spot them.

Have a look at the final page (appendix) of this workbook – if you have followed all the steps correctly, your search strategy should look similar.

7. Viewing and saving your results

a. Viewing your results

After your search, you can view the results and sometimes get a link through to the full text of articles. Being able to access the full text depends on the Library having a subscription to the journal a particular article had been published in – see below.

If you scroll down the screen you will see the first 10 results. References will have some or all of the following links beside them:

Abstract Reference	A brief summary of the article
---------------------------	--------------------------------

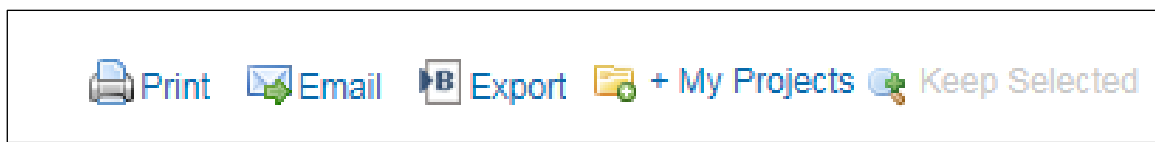
Complete Reference	Full details of the article, including abstract and subject headings
Find Similar	Clicking this will show you other related articles
Find Citing Articles	See who has subsequently referred to (cited) the article in their own research
Document Supply	A link to the Library's Document Supply service, where you can request items we don't have access to in print or online. The service costs £10 per request.
check@leeds	This will try to download the full text for you, if we subscribe electronically to the journal it is published in. If this link fails, try searching the Library Catalogue for the article to see if we subscribe or have it available in print.

Try viewing some of your results, using the links described above.

b. Saving your results

There are various ways you can save the results of your search – not the full text papers themselves, just a record of the results that you have found.

You can tick individual results and then use the appropriate option Print/Email/Export on the bar above your results:



Or you can select all your results (within the maximum allowed number) by ticking the 'All' box to the far left and then exporting/emailing etc.

Instruction for EndNote software users only: If you want to send your results to an EndNote library, choose the **Export** option and then choose the RIS format from the drop-down menu that appears. Click **Export** and your references will be downloaded to your computer. When you open the downloaded file, the references should be automatically added to your EndNote library.

If you don't know what EndNote is and want to find out more, see https://library.leeds.ac.uk/info/1403/endnote/43/endnote_support

c. Saving your search strategy – setting up a personal account

You can also save a live copy of your search strategy using OVID's free Personal Account feature. This means that you can re-run a search at a later date without having to re-type your terms. This is particularly useful when working on projects rather than just trying to find some background reading.

Don't feel obliged to complete the following exercise if you don't think it will be useful yet.

Exercise 6

To set up your personal account, click on **My Account** at the top right of the screen.

Then click on **Create Account**.

Follow the instructions on screen. Choose any account name and password, making sure it is something you will be able to remember easily – don't use any spaces or symbols or your password will be refused. Your account name and password do not have to be the same as your University IT account.

Now go back to the Search page and perform the search you want to save. (You may decide to run something very simple as a test).

Click on **Save All** underneath the Search History box and log in with your new account name and password if prompted.

At the top of the screen, type a name for your search into the Search Name box. Give the search a logical name so you can easily recognise it in the future. We also recommend adding the name of the database you used, and the date, so that you can easily distinguish between different searches.

By default your search will be saved permanently. You can also save a search temporarily, meaning it will disappear after 24 hours, or as an AutoAlert - each time the database is updated, any new references which match your search criteria will be sent to you in an e-mail. Make your selection of permanent, temporary or auto-alert from the **Type** drop down menu.

Click on **Save** to complete the process.

Once you have saved a search strategy, you can run it again at a later date by clicking on **View Saved** in the top right corner. Select the search you want to run and click on **Run**. Your results will be available back on the main search page (click on the Search tab to get there).

It is a good idea to make sure your Search History is clear before running a saved search. Otherwise your results will be added on to the end of any results already visible.

To delete searches from your Search History, tick individual boxes (or the one at the top to select them all) and click **Remove**.

8. Using limits

Your search may have found a large number of articles. Not all of these will be exactly what you want – e.g. they may be:

- Not exactly on the topic you're looking for
- Too scientific for your needs
- In a language you don't understand (although the abstract/summary may be in English) e.g. Alvarez-Rayon, G et al [Body image and eating disorders]. [Spanish]

If your search has produced a lot of references, you might want to cut the number down. You could, for example:

- exclude non-English articles
- restrict the results to a particular publication date, or range of dates
- limit your results to review articles only
- select only those articles which are relevant to humans i.e. exclude animal studies

Popular limits are available near the search box.

Use these with care when you are trying to search comprehensively, as you can miss important references this way. If you do use them, apply them one at a time so you can see the effect they have. All you need to do to apply a limit to the end of the search you have carried out is tick the appropriate limit and click on the Search button. This will apply the limit to the last search you performed (just do this once, after you have finished combining any searches).

Further limits can be accessed by clicking on **Additional limits**.

9. What next?

After your initial search you could try one of the following:

- Refine your search - look at the results you've got and see if there are any additional keywords you could use, or any you should take out. You will probably have to do a series of searches to come up with your best search, even experienced searchers do this
- Try different databases - try EMBASE, HMIC, PsycINFO etc. You can see a list of medical and health related databases by going to your subject support page <http://library.leeds.ac.uk/subjects> . Look for the Subject Resources > Databases tab list of databases for your subject.
- Follow up references - look at the list of references/bibliography at the end of a useful article and see if there are other articles you have missed. You could also use the **Web of Science** database to do a citation search to find who has quoted a particular paper since it was published.
- You might like to try a more comprehensive search (using subject headings as well as keywords) – see the more advanced workbooks – see 'about this workbook' section on page 2.

10. Accessing Medline from off-campus

All University staff and students can access OVID databases from off-campus as well as inside the University. Usually, you will be prompted to log in with your IT username and password.

Appendix 1 - Example search strategy

If you have followed the steps in this workbook, your strategy should look similar to this. It shows the keyword searches you carried out and how you combined them. The numbers of results will change as new references are added to the database.

To generate a copy of your search strategy like this, go to 'Print' on the Menu bar from the main search screen, and then tick the 'Include search history' option, followed by 'Print Preview'.

Database(s): Ovid MEDLINE(R) 1946 to July Week 5 2014		
Search Strategy:		
#	Searches	Results
1	cbt.mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier]	4645
2	cognitive behavior?r therap*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier]	2089
3	talking therap*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier]	73
4	talking treatment*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier]	9
5	self esteem.mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier]	12974
6	self confidence.mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier]	2095
7	self worth.mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier]	1057
8	self value.mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier]	37
9	self regard.mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier]	82
10	eating disorder*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier]	17336
11	appetite disorder*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier]	495
12	anorexi#.mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier]	26161
13	bulimi#.mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier]	8424
14	1 or 2 or 3 or 4	5877
15	5 or 6 or 7 or 8 or 9	15767
16	10 or 11 or 12 or 13	40155
17	14 and 15 and 16	29

Explanatory notes:

Line 1 abbreviations are valid search terms (but may be in use in more than one context)

Line 2 wildcard ? and truncation * techniques used in combination to retrieve variations on this phrase (see page 5)

Line 12 (and 13) # is used to indicate one definite character would be present at this position (could also use * in this context)

Line 14 is the topic 1 combination set

Line 15 is the topic 2 combination set

Line 16 is the topic 3 combination set

Line 17 is the final set of results (having combined the combination sets!)