SKILLS@LIBRARY
THE UNIVERSITY LIBRARY

ADVANCED EMBASE

Contents

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.

UNIVERSITY OF LEEDS

Introduction

Bibliographic databases like Embase contain records of information about journal articles. You can search inside databases to find articles on your topic of interest. Embase is a major biomedical database, with particular strengths in the areas of pharmacology, psychiatry and biomedical engineering. It covers about 3,500 journals and references appear approximately 8 weeks after publication. Embase covers material published since 1996, but we also have access to Embase Classic which covers back to 1947. New references are added to Embase every week.

Embase has direct links to the full text of some journal articles. For many articles, however, it only provides the abstract (the summary paragraph), but the record will tell you which journal the article has been published in. See section 8 for more information about accessing the full text of articles.

Learning outcomes

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

- Access Embase via the Library website
- Search for references using a variety of search techniques
- Perform a comprehensive search for a topic
- Combine your search results
- View and export 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.

1. Getting Started

a. Before you start

Throughout this workbook, you will learn how to use subject headings and keywords to find articles to answer a particular question:
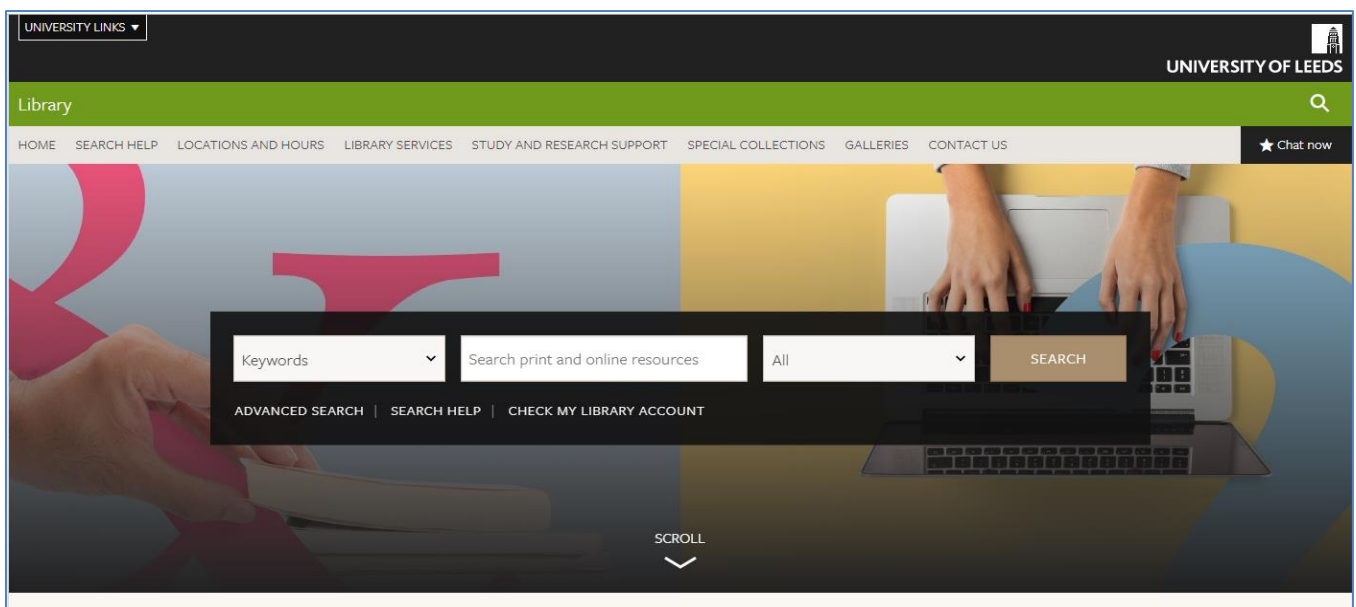
"Can cognitive behavioural therapy help to improve self esteem in people with eating disorders?"

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.

b. Logging in to Embase

Exercise 1 – Getting in to Embase

To access the database, go to the Library's homepage at https://library.leeds.ac.uk/ and type "Embase" into the search box in the middle of the page:
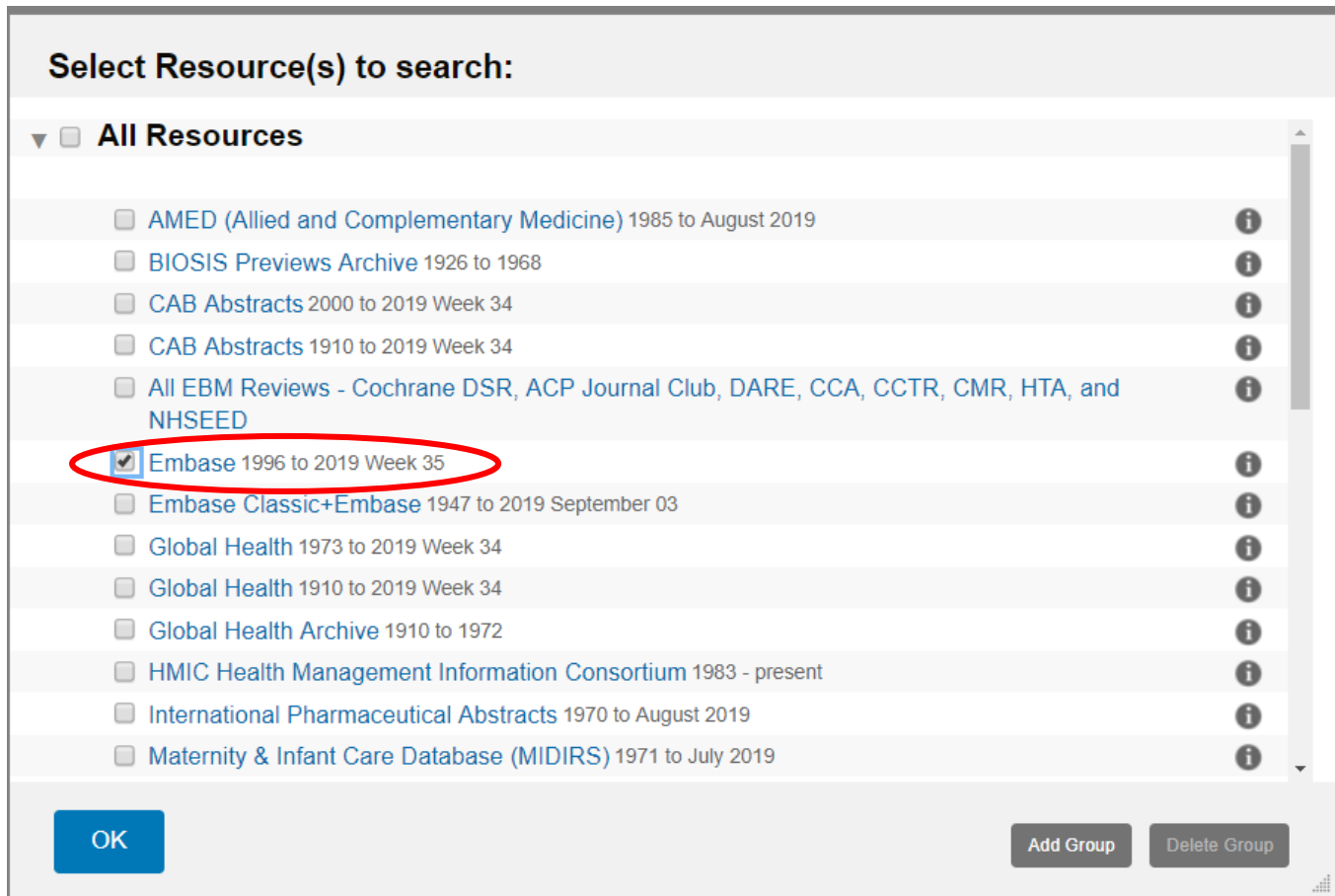

Click on the Go to EMBASE link near the top of the results page:

EMBASE
Go to EMBASE

This database allows you to search for journal articles in biomedicine, psychiatry and pharmacology. The database is updated weekly and can be searched back to 1980. A current awareness service provides alerts for newly added content. Compared to Medline, EMBASE has a more European bias, and only about one third of the journals are covered in both databases. EMBASE Classic covers the period 1947-1979.

You might need to login in with your University username and password.

Now click on the link to **Embase 1996 to ... [current year]** in the list of databases.
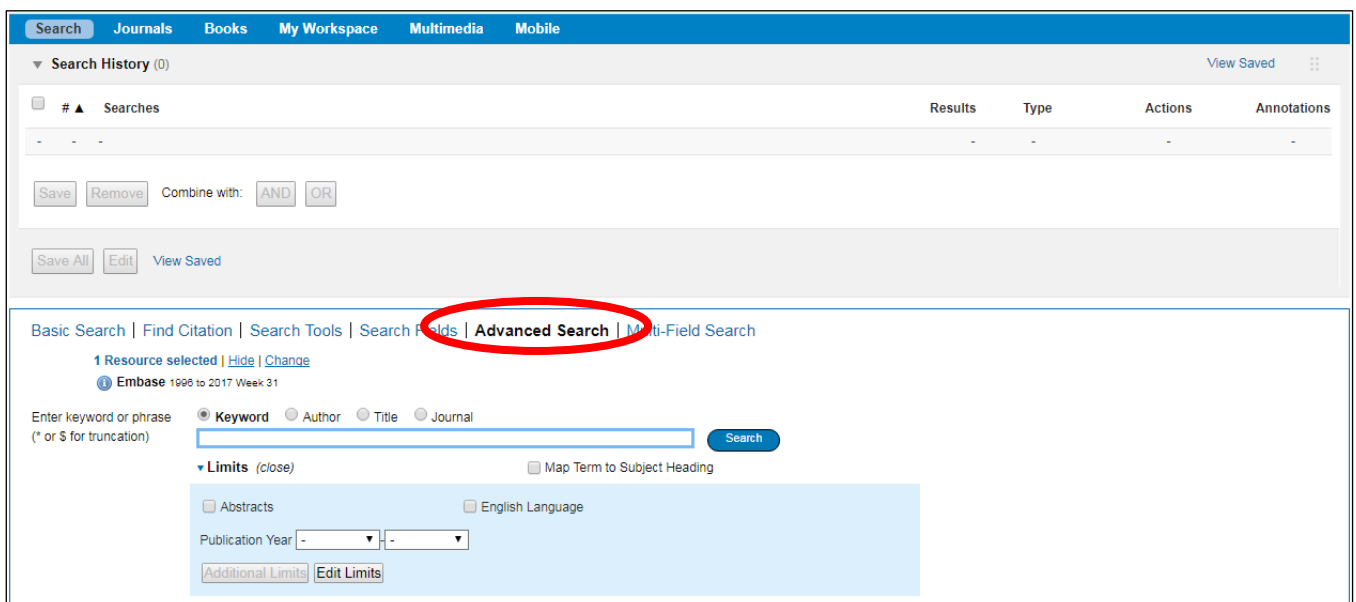

You should see this screen. During this workbook you will be searching on the **Advanced** screen as this is the only screen that allows you to search using **subject headings** and **keywords** and then combine them using the AND + OR buttons.

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, 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:

First we will search for articles about **cognitive behavioural therapy**

1. Then we will search for articles about **self esteem**
2. Then we will search for articles about **eating disorders**
3. 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.

3. Searching with subject headings – the 'topic search'

In addition to the information about the article's author, title and publication details, every record in Embase contains a number of **subject headings** to help describe the content of that article. Subject headings are chosen by an indexer from a set list of words and phrases. You can choose to search for articles that have been given a particular subject heading. Searching by subject heading means that you will get results whose main focus is that topic, regardless of the words the author used to refer to the topic in the actual article.

When there is a tick in the box marked 'Map term to Subject Heading', Embase will try to help you identify the subject heading that is used for your topic. For example, if you type in **complementary therapies** Embase will tell you that the recognised subject heading is actually **Alternative medicine.**

Note that subject headings vary between databases so each database needs to be searched separately and the appropriate headings identified. This is referred to as 'tailoring' the search between databases.

Exercise 2

To carry out subject heading searches you must first put a tick in the box **Map term to subject heading** - do this now (see screenshot).

In the search box, type `cognitive behavioural therapy` and click on **Search**.

Embase will now try to find the most appropriate subject heading for you.

The next screen shows a list of suggested subject headings for you to choose from. For some topics, 10 or more subject headings may be suggested.

What you need to do here is choose the closest matching heading for the topic you typed in. Sometimes you will find an exact match but other times you have to carefully choose from the database's suggestions.

Don't be distracted away from the topic you searched for and choose the most relevant option (if there is one).

If you want to find out more information about a heading, you can try clicking on its scope button.

In this case Embase has found the suitable heading **Cognitive Behavioral Therapy** – click on it.

You are now on a page showing where **Cognitive Behavioral Therapy** appears in Embase's alphabetical list of subject headings.

	cognitive behavioral therapy	3196	☐	☐	ⓘ
	[Used For]				
	CBT (cognitive behavioral therapy)				
	CBT (cognitive behavioural therapy)				
	cognitive behavior therapy				
	cognitive behavior treatment				
	cognitive behavioral treatment				
	cognitive behaviour therapy				
	cognitive behaviour treatment				
	cognitive behavioural therapy				
	cognitive behavioural treatment				
	[Broader Terms]				
☐	psychotherapy	55490	☐	☐	ⓘ
	[Narrower Terms]				
☐	cognitive behavioral stress management	359	☐	☐	ⓘ

Exercise 3

Sometimes you need to scroll down to find your heading – it will have a blue band across it. The corresponding number under the column **Hits** tells you how many articles will be retrieved.

Subject headings may have broader and/or narrower subject headings. Our heading is a narrower heading within the broader topic of **Psychotherapy**, but has a narrower term of **Cognitive Behavioral Stress Management**.

If you want the papers belonging to a particular heading, you have to tell the database by ticking the box next to that heading – for example, don't assume that if you searched for Psychotherapy that the Cognitive Behavioral Therapy papers would automatically be included, as this is not the case. You would have to include a separate subject heading search for cognitive behavioral therapy papers.

Scroll to the top of the page and click on Continue.

▼ Search History (1)					View Saved	⣿
☐ # ▲ Searches		Results	Type	Actions	Annotations	
☐ 1 cognitive behavioral therapy/		3196	Advanced	Display Results More ▼	💬	
Save Remove Combine with: AND OR						

You should now be back on the main search page where your first set of results can be seen.

Exercise 4

Now try another subject heading search for **self esteem** – the second concept within our example research question. Follow the same process you used for cognitive behavioural therapy.

The heading Embase offers is an exact match: **Self Esteem**

Select	Subject Heading	Explode	Focus	Scope
☑	self esteem	☐	☐	ⓘ
☐	self esteem.mp. search as Keyword			

Click on **Self esteem** to see whether it has any narrower topics you might want to include.

As shown below, it doesn't have any of its own narrower headings but it comes under the broader term of Self concept - which you might want to investigate further. It includes other headings like **body image** – if you wanted to carry out a broader search, you could tick Self Concept instead, and use the

Explode feature which has the effect of picking up all the extra papers about the narrower headings as well.

	self esteem	16267	☐	☐	ⓘ
	[Broader Terms]				
	☐ self concept	65005	☐	☐	ⓘ

For this example, just select Self Esteem and click on **Continue** to return to the main search page.

Exercise 5

Finally, carry out a subject heading search for **eating disorders** (the third concept within our research question).

Embase should offer you the heading **eating disorder**.

Select	Subject Heading	Explode	Focus	Scope
☑	eating disorder	☐	☐	ⓘ
☐	eating disorders.mp. *search as Keyword*			

Click on the heading link to investigate whether it has any narrower topics you want to include.

The heading has a series of narrower headings, as shown in this screenshot:

	eating disorder	18230	☑	☐	ⓘ
	[Used For]				
	eating disorders				
	EDNOS				
	feeding and eating disorders				
	[Broader Terms]				
	☐ behavior disorder	39083	☐	☐	ⓘ
	[Narrower Terms]				
	☐ anorexia nervosa	12273	☐	☐	ⓘ
	☐ binge eating disorder	5537	☐	☐	ⓘ
	☐ bulimia	9307	☐	☐	ⓘ
	☐ female athlete triad	204	☐	☐	ⓘ
	☐ food addiction	480	☐	☐	ⓘ
	☐ food aversion	389	☐	☐	ⓘ
	☐ pica [+NT]	800	☐	☐	ⓘ

If you want articles about all of these topics, don't forget you can tick the **Explode** box to include them all. Do this now.

Click **Continue** twice to get back to the main search page.

Your search table should now look similar to this:

▼ **Search History (3)**					View Saved	⠿
☐	# ▲	Searches	Results	Type	Actions	Annotations
☐	1	cognitive behavioral therapy/	3196	Advanced	Display Results | More ▼	🖵
☐	2	self esteem/	16267	Advanced	Display Results | More ▼	🖵
☐	3	exp eating disorder/	34095	Advanced	Display Results | More ▼	🖵

Save Remove Combine with: AND OR

Note: Now that you have a set of results for each of your topics, you could **tick** and **combine** these sets together using the **AND** button. However, this would only give you an indication of what has been published and would **not** be a comprehensive search. Also, if you need to show evidence of the way you have conducted your search, you may lose marks for not showing awareness of the more comprehensive search methods that are explained later in this workbook.

4. Searching with keywords – the 'exact phrase search'

Subject heading searches will probably find you many of the relevant papers, but for a comprehensive search you need to supplement your subject heading searches with some **keyword searches**.

Searching by keyword means that you 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 concept (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)

2. Words that you might be interested in can have variations, perhaps in the spelling (e.g. behaviour vs. behavior) or different endings (e.g. depressed, depression, depressive etc) that could be of interest

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 concept 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 concepts 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 concept, 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 concepts 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. For example 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
?	?	?
?	?	?
?	?	?
?	?	?

5. Truncation and wildcards

To help save you some time and effort, Embase has 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 databases the following apply:

1. * is used to truncate (shorten) words and find different word endings, e.g. depress* will find depressed, depression, depressive etc
2. # is used to search for a variable single character, e.g. organi#ation will find organisation and organization
3. ? 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

Note: you can use these techniques in combination e.g. behavio?r*

Look at the list of words you've created – can you find a suitable use for truncation or wildcards? Do you want to search for both plural and singular versions of words?

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 6

Now it is time to enter your words and phrases, one at a time, into Embase. First, you need to tell the system you want to perform a **keyword search** and not a subject heading search.

To do this, **remove the tick** from the box marked **Map Term to Subject Heading** by clicking in the box.

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** – if you don't search using a range of terms you will miss some key papers.

Exercise 7

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

Exercise 8

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

Note: To delete any of your searches, tick the box next to the search in the Search History (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.

6. 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 either 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.

Embase does not count **stop words** such as in, on, and, the, 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**.
- ADJ**2** searches for both terms and up to **one** word in between them
- ADJ**3** searches for both terms and up to **two** words in between them
- ADJ**n** 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 checking your results for relevance.

7. 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 concepts together.

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

Exercise 9

Look at your **Search History** table. This shows you every search you have carried out so far.

Identify all the searches (subject heading and keywords) 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 combined 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 Results** 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

8. Viewing and saving your results

a. Viewing your results and accessing the full text of articles

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.
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.

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 just the 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.

Exercise 10

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**.

9. Other search features

a. Limiting searches

Embase has a large number of limits you can apply to your search. The most common limiting options, e.g. English language, can be found underneath the search box.

Use these with care when you are doing a comprehensive search, as you could 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 search you have carried out is to tick the appropriate limit (or set the publication year options) and click on the Search button. This will apply the limit to the last search you performed. It's best to do this after you have finished combining any searches.

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

10. 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 Medline, PsycINFO, HMIC 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
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.

11. Accessing Embase from off campus

All University staff and students can access Embase and most other databases (and electronic journals) from off campus as well as on campus. Usually, you will be prompted to log in with your IT username and password.

Appendix 1

Example search strategy

If you have correctly followed the steps in this workbook, your strategy should look very similar to the one below. It shows **subject heading** searches (those followed by /), **keyword searches** (those followed by .mp.) and how they should be combined. The number of results at each stage will change as new references are added to the database.

To generate a copy of your search strategy like this, click **Print** above the results list, and then tick the **Include search history** option, followed by **Print Preview**.

Print Citation List:

Selected Results: *1-10*

▼ Select Fields to Display
  ⦿ Citation (Title,Author,Source)
  ○ Citation + Abstract
  ○ Citation + Abstract + Subject Headings
  ○ Complete Reference
  ○ Custom Fields [Select Fields]

▼ Select Citation Style
  [Ovid Citation ▼]

▼ Include
  ☑ Search History
  ☐ Annotations

[Cancel] [Print Preview]

Database(s): **Embase** 1996 to 2017 Week 31
Search Strategy:

#	Searches	Results
1	cognitive behavioral therapy/	3196
2	cognitive behavio?r* therap*.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word]	20081
3	cbt.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word]	12205
4	talk* therap*.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word]	223
5	talking treatment*.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word]	15
6	1 or 2 or 3 or 4 or 5	24199
7	self esteem/	16267

8	self esteem.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word]	23691
9	self confiden*.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word]	3787
10	self worth.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word]	1464
11	self value.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word]	67
12	self regard.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word]	80
13	7 or 8 or 9 or 10 or 11 or 12	28005
14	exp eating disorder/	34095
15	(eating adj1 disorder*).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word]	28059
16	appetite disorder*.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word]	3374
17	anorexi*.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word]	67610

18	bulimi*.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word]	10653
19	14 or 15 or 16 or 17 or 18	92966
20	6 and 13 and 19	103