Information systems manager at the RCM library Catherine Ebenezer provides a detailed overview of free online tutorials for finding and using evidence-based health information.

Information: finding the evidence base

The website NHS Scotland e-learning environment for information literacy skills (see: www.info-skills.scot.nhs.uk) covers the process of formulating questions, identifying information sources, developing search strategies, filtering and evaluating what is retrieved, then synthesizing, communicating and applying the information in practice. However, the main content is ATHENS-authorized and hence restricted to those working in Scotland. Another article on literature searching using bibliographic databases is Using the internet for literature searching by Paula Younger (see: http://digbib.com/4fg6g).

Guides to bibliographic databases

In identifying suitable sources of help for searching the main bibliographic databases for health sciences, it is important to distinguish between the database content itself and the platform on which it is made available. Maternity and infant care (the MIDIRS bibliographic database) is available to individual subscribers via MIDIRS' own interface (see: www.midirs.org) and is also available to institutional subscribers on the WebSPIRS and OVID interfaces. They look different and have different search functionality, but the content is the same. Many databases (such as MEDLINE) are available via a wide variety of interfaces. An institution can purchase a whole variety of bibliographic databases and provide access to them via a platform such as OVID. It is important to find out which interface your library is offering and select tutorials that relate specifically to it.

England’s NHS National Care Content working group has produced an interactive learning guide and documentation for Dialog DataStar, MEDLINE, CINAHL, British Nursing Index and others (see: http://digbib.com/4fg6g). Dialog DataStar is the interface available in the RCM library. The NHS Scotland e-Library also has a range of guides to its databases (see: www.elib.scot.nhs.uk/elibraryhelp/Index.html) as has HONNI (Health on the Net Northern Ireland) (see: www.honni.qub.ac.uk/ResourceGuides/DatabaseGuides). The guides are freely available, although access to the database content is restricted. PubMed Help at the National Library of Medicine has produced a tutorial on searching PubMed MEDLINE (see: http://digbib.com/4fg6g). A PubMed tutorial is...

General tutorials on literature searching

Information exploration: becoming a savvy scholar is an online course from the Massachusetts Institute of Technology designed for first-year undergraduates in scientific disciplines (see: http://digbib.com/4fg6g). It explores the scientific publication cycle, including the role of primary and secondary literature as well as online and in-print bibliographic databases. It includes material on how to search, evaluate and cite information, indexing and abstracting, using 'grey literature' (technical reports and conference proceedings), conducting web searches and constructing literature reviews. The tutorial is downloadable as a zip file and uses Flash animations, so a file compression utility such as WinZip, and Flash player (the latter is a free download from: www.adobe.com) needs to be installed on your computer.

The excellent presentation, How to do a literature search (see: http://digbib.com/4fg6g) by Andrew Booth and Mary Dixon-Woods of the School of Health and Related Research (ScHARR) uses midwifery and social sciences case studies. It explains the conceptual basis of effective literature searching, including Boolean operators (the use of the AND, OR and NOT in search queries) and the use of controlled vocabularies (thesauri).

My own presentation, Literature searching for research (see: http://digbib.com/4fg6g) gives a current overview of the main sources of evidence in midwifery and maternity services, as well as a brief look at search techniques.

'Many midwives are inclined to be negative about the notion of practice having to be 'evidence based', associating it with over-prescriptive clinical guidelines and a medicalised approach.'
Information: finding the evidence base

available on HONNI (see above).

Generic tutorials are available on the
WebSPIRS and OVID gateways. These are useful
to familiarize and infant care (the MIDIRS bibli-
graphic database, see http://digbib.com/4tggb)
and the link WebSPIRS (for WebSPIRS) and:
http://digbib.com/4tgff (for OVID). Wiley,
the publishers of the Cochrane Library have produced
Cochrane Library online help manual and other
training resources (see: http://digbib.com/4tggc).

Using information on the web

For the early 1990s, the internet has become a
garnerous publication platform. However, search-
ing it effectively for good quality health informa-
tion is not a straightforward process. Existing
tools cannot effectively retrieve all relevant
information and unlike traditional publication
sources, there is no quality filtering.

An established web-searching tutorial has
pioneeredly been revised: Internet for nursing, mid-
wife and health visiting (Intune). As with other
more specific tutorials, it includes four components: a
list of relevant sites, guidance on conducting
effective web searches, evaluating web resources
in case studies illustrating the use of the web. It
does also have a facility for creating your own collection
of resources (see: www.nts.inntec.ac.uk/hel
ito/nurse).

The Pandia Goal getter web search tutorial is
described as: 'A short and easy guide to web
searching, search engines and directories'. It takes
about 30 minutes to work through (see:

Another long-established and thorough tutorial
that covers all areas of internet is NetKills TONIC
(see: http://digbib.com/4tggh). It also remembers
how far you have gone each time you visit the site.
If you must use Google, it is well worth
acquiring yourself with its advanced search
functions, which include phrase searching,
boolean OR, word stem and synonym searching
and extensive limit features (see:
www.google.co.uk/inurl/en/help/refinerearch.html).

Evidence-based practice

Many midwives are inclined to be negative
about the notion of practice having to be 'evidence-
based', associating it wrongly over-prescriptive
clinical guidelines and a medicalised
approach. The issue however, is about the type
of evidence that is considered. Evidence-based
medicine has tended to focus on quantitative
research, in particular the results of randomised
controlled trials, thereby excluding much mid-
wifery knowledge. For this reason I have specifically
included in the following sections resources on finding and appraising qualitative research
for evidence-based practice (EBP).

One of the first in the field with EBP training
was the Critical Appraisal Skills Programme, part
of the Public Health Research Unit in Oxford,
which produced An introduction to evidence-based
practice (see: www.caspinternational.org/ebp/).

An interactive learning package (also needs
Flash) from the University of Leicester, Evidence
wheel (see: http://digbib.com/4tggh) covers
National Library for Health and National Core
Content resources.

EBM Tools, from the Centre for Evidence-
Based Medicine at the University of Oxford (see:
http://digbib.com/4tggh) deals with focused clinical
questions, finding evidence, study designs,
critical appraisal and evidence levels - a glossary
is included. Do not be put off by 'EBM'. In
the title, the content is applicable to other
health professions.

SchARR's guide to evidence-based practice on
the internet, Netting the evidence (see:
www.shef.ac.uk/scharr/int/netting/) is a compre-
enhensive guide to EBP resources. The Introduction
to evidence-based medicine from the University of
North Carolina at Chapel Hill (see:
www.ubc.edu/services/tutorials/ebm/index.htm)
is an online tutorial that takes the user through
the steps of formulating a clinical question and
translating it into a literature search. Also from
this university is: Searching the medical literature
for the best evidence (see: http://digbib.com/4tggh)
- a tutorial on selecting and searching resources
for evidence.

An excellent set of learning objects on formulating
clinical questions, searching for, appraising and
applying evidence in practice is provided at the
website Practicing evidence-based medicine. The site
is produced by the Centre for Evidence-Based
Medicine at the University of O’Connor (see:
www.cebm.utoronto.ca/practice).

The User’s guide to evidence-based practice pro-
duced by the Centre for Health Evidence are
extremely detailed. Originally published in the
Journal of the American Medical Association these
are not for the faint-hearted (see: www.ohc.net/
userguides/main.asp). Becoming ADEPT: applying
diagnosis, (c)ontology, prognosis and therapy method-
ological filters to retrieving the evidence (see:
www.shef.ac.uk/scharr/adept) is a distance
learning course from SchARR corresponding closely to the User’s guide.

In 2001, the RCOG produced Searching for evi-
dence (see: http://digbib.com/4tggh). Some of the
sources cited are out of date, but it provides a useful
overview of searching for evidence for guideline
development in obstetrics and gynaecology.

Critical appraisal

Many of the tutorials above include sections on
critical appraisal. The following sites are devoted
specifically to this.

• Critical appraisal and using the literature, an
online course from SchARR (see: http://
digbib.com/4tggh)

• Critical appraisal skills workshop, a presentation
from the Aggressive Research Intelligence
Facility at the University of Birmingham (see:
www.irit.bham.ac.uk/casp/caspidex.pdf)

• How to read a paper: articles from the BMJ
by Trisha Greenhalgh (see: http://digbib.com/
4tggh)

• The Critical Appraisal Skills Programme has a
variety of tools for appraising different types
of article (see: http://digbib.com/4tggh)

• The University of Salford Health Care Practice
Research and Development Unit produces
guides to critical appraisal of qualitative, quan-
titative and mixed research designs (see: http://
digbib.com/4tgha)

• Evidence-based practice checklists from the
University of Glasgow. These are to help with
asking appropriate questions of different types
of research (see: http://digbib.com/4tggh).

Although not a tutorial, I must mention Mary
Dixon-Woods’ et al.’s important report for the
National Institute for Health and Clinical
Excellence, Integrative approaches to qualitative and
quantitative evidence, which reviews the literature
in this area (see: http://digbib.com/4tgkh). The
report seeks to answer the following questions:
What is the role of qualitative approaches in
traditional trials and experimental studies?
At what point in the development of a field of
knowledge is it appropriate to pull qualitative
and quantitative learning together?
What constitutes good evidence from qualita-
tive studies?
Are there hierarchies of evidence within the
different types of qualitative investigation?
How may the findings of qualitative and quan-
titative research be synthesised?

Dixon-Woods’ Critical interpretive synthesis: a brief
introduction is also worth looking at: http://dig-
bib.com/4tgkh, as is Andrew Booth’s 2001 pre-
sentation, Cochrane or cunk-eyed? How should we conduct systematic reviews of qualitative research? (see: