





most CAM it is challenging or impossible to design a sham treatment.

An alternative study design is to compare conventional treatment with CAM, or to compare conventional treatment plus CAM with conventional only. Comparative effectiveness studies<sup>12</sup> are often used for these study designs to compare two types of treatment, for example, chemotherapy alone compared with chemotherapy plus reiki.

In addition, many CAM are 'complex interventions', for example, an acupuncturist providing acupuncture treatment, lifestyle advice and diet advice, or a programme that combines exercise and dietary advice. These may require specialist study designs, the most common of which is a pragmatic design where the intervention is based on that used in practice, rather than being standardised.<sup>13</sup> The Medical Research Council (MRC) has produced some excellent guidance on evaluating complex interventions.<sup>14</sup>

Another challenge is that it may not be possible to identify a primary outcome (the main effect expected from the treatment), as the therapy may have multiple, unpredictable effects, which could be different for each individual. This can be dealt with by using patient-generated outcome measures, such as MYMOP (Measure Yourself Medical Outcome Profile), which ask the client to specify what the most important outcome for them is.<sup>15,16</sup>

### Why therapists need research

There is an increasing demand to prove the effectiveness and safety of complementary therapies – and learning to access, understand and use research also helps to build a solid foundation for your own practice. Understanding the evidence base for complementary therapies helps you decide what may be an appropriate approach for a client with specific set of symptoms, so you can provide a more individual, therapeutically effective treatment plan.

Evidence-based medicine (EBM) has been defined as integrating individual clinical expertise and the best external evidence.<sup>17</sup> In clinical practice, practising EBM involves exploring the evidence base for the particular condition and therapy, choosing the highest quality research and using this, alongside your clinical expertise and client input, to inform the treatment choice.

A strong evidence base for your therapy will help you and your profession to build connections with other healthcare professionals, in particular NHS professionals who are often mainly interested in EBM. By learning the language of research and familiarising yourself with the evidence base, you can communicate better with other professionals.

In many respects, the future of complementary therapy depends on the evidence base, in terms of financial support from clients and commissioners, support for

NHS-provided therapies and support from individual healthcare practitioners who may refer to you. If you are considering applying for funding, putting together a business proposal, or thinking about working within

the NHS, research will help to provide support and backing for your therapy, and assessing the quality of the research is imperative to ensure that you have a strong case.

## Accessing and assessing research

Finding research can seem a daunting task, with thousands of journals, hundreds of databases and a plethora of search engines. Research is published as articles or papers in journals, which can be online or printed, and are accessible through databases, which are online.

Here are the key steps in finding and using evidence:

### 1 Search the databases

- The first step is to search the databases to find relevant articles. Some of the common databases are Pubmed ([www.ncbi.nlm.nih.gov/pubmed](http://www.ncbi.nlm.nih.gov/pubmed)), Science Direct ([www.sciencedirect.com](http://www.sciencedirect.com)), and NHS Evidence ([www.evidence.nhs.uk](http://www.evidence.nhs.uk)). Subscription-only databases include Ebsco host (<http://search.ebscohost.com>) and Ovid (<http://ovidsp.ovid.com>). Google scholar (<http://scholar.google.co.uk>) is also useful, but should be used with caution because it is not an academic database, only searches certain journals and has limited search functions.
- You can also go straight to the journals, although these are included in the databases above. Some journals of interest include:
  - Alternative Therapies in Health and Medicine;
  - BMC CAM;
  - Complementary Therapies in Clinical Practice;
  - Complementary Therapies in Medicine;
  - European Journal of Integrated Medicine;
  - Forschende Komplementärmedizin;
  - Journal of Alternative and Complementary Medicine;
  - Journal of Complementary and Integrative Medicine; and
  - specific therapy journals.
- When looking for articles, it is important to think carefully about what you are searching

for, as you will need to use keywords, just as you would when using Google. For example, if you want to find evidence for the use of aromatherapy for sleep problems, you might search for 'aromatherapy' or 'essential oils', and 'sleep' or 'insomnia'.

### 2 Read the abstracts of the papers you find to see if they are of use to you

- An abstract is basically a summary of the paper [Figure one]. A number of points to consider include:
  - Whether the treatment used is relevant to your work;
  - Which health condition is being studied and if this is appropriate for your purposes; and
  - How old the study is, with more recent studies potentially being the most relevant.

### 3 Find the full text of the articles you are interested in

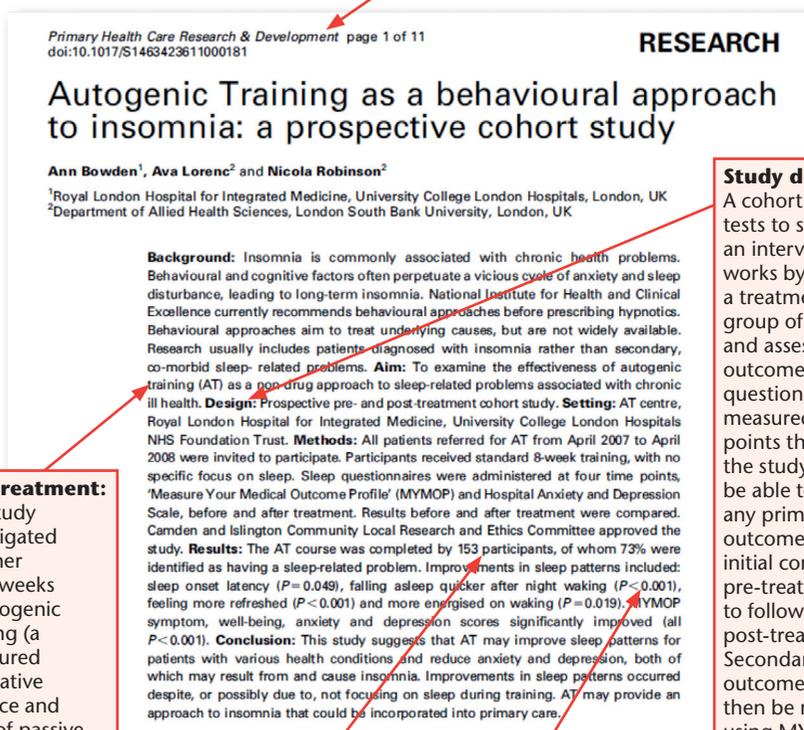
- Once you have a list of articles you are interested in, you then have to get hold of the full text of these papers. Some open access journals publish the full text online for free (the researchers pay a fee for this); for others, you will have to pay, unless you are part of an organisation, such as a university, which pays an annual subscription for the journal. For a small fee, your local library may be able to obtain photocopied articles (for academic use only).
- Key open access journals are BMC CAM ([www.biomedcentral.com/bmccomplementaltermmed](http://www.biomedcentral.com/bmccomplementaltermmed)), BMJ ([www.bmj.com](http://www.bmj.com)), and Cochrane reviews ([www.thecochranelibrary.com](http://www.thecochranelibrary.com)).
- If you are a student or employee of a university, the library will be able to give you guidance on how to access journals.

4 Assess the evidence

- Once you have the articles, you need to assess the quality of the research. This can be complex, but a few things to look for are:
  - Whether the study adds anything to the existing literature, and whether the findings were novel.
  - The type of study, and whether the study design was the right one for the question being studied. Systematic reviews and meta-analyses tend to be the highest form of evidence because they bring together the evidence from a large number of studies and evaluate their quality, with randomised trials considered the next best form, followed by cohort studies, case control studies and cross-sectional studies.
  - Who the study was about; how the participants were recruited, and the size of the study – in general, the more participants, the more reliable the study.
  - If the study tried to evaluate the effectiveness of a treatment; whether an appropriate control group was used (a group who didn't receive the treatment), and, if so, whether the two groups were as similar as possible. Non-randomised trials are more likely to be biased as there may be differences between the groups.
  - Whether the follow-up period was long enough and how many people finished the study. If too many dropped out, there may be reasons for this that affect the results, for example, maybe they experienced side effects from the intervention.
  - There is a lot of guidance on how to appraise research, with one of the best being the BMJ series, How to Read a Paper ([www.bmj.com/about-bmj/resources-readers/publications/how-read-paper](http://www.bmj.com/about-bmj/resources-readers/publications/how-read-paper)) or the book, How to Read a Paper: The Basics of Evidence Based Medicine.<sup>18</sup>

Breaking down an abstract to its key components

Figure 1: How to read an abstract



**The treatment:** The study investigated whether eight weeks of autogenic training (a structured meditative practice and state of passive awareness, used as a stress management technique to promote relaxation) could help people experiencing sleep problems as a result of chronic ill health.

**Sample size:** In general, the more participants used, the better, with 153 participants a strong sample size.

**Results:** Although it is not possible to explain p values in a sentence, because these are smaller than 0.05, these p values show that the results are statistically significant, meaning they are unlikely to have occurred by chance.

**Study design:** A cohort study tests to see if an intervention works by giving a treatment to a group of people and assessing outcomes. Sleep questionnaires measured at four points throughout the study would be able to assess any primary outcomes from the initial consultation pre-treatment to follow-up post-treatment. Secondary outcomes could then be measured using MYMOP (where participants specify what the most important outcome for them is), and Hospital Anxiety and Depression Scale twice throughout the study would measure changes to mental health.

Further information

- The RCCM website has information designed for CAM practitioners interested in research, plus it runs workshops and sends updates in its CAMRN emails ([www.rccm.org.uk](http://www.rccm.org.uk)).
- The IN CAM outcomes database can be useful for thinking about outcome measures ([www.outcomesdatabase.org](http://www.outcomesdatabase.org)).
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