State of mind

Dr Karen Pilkington looks at the evidence base and use of complementary therapies in anxiety and depression

In the first of our new series of articles that focus on mental health, Dr Karen Pilkington discusses how to interpret the research on complementary therapies in conditions such as anxiety and depression, which are among the most common reasons for people seeking treatment outside conventional healthcare, and are increasing in prevalence.

The idea of evidence-based medicine

Evidence-based medicine (EBM) was first introduced into the UK in the 1990s. Professor David Sackett, a physician from Canada, was one of those to lead its introduction. He was the first director of the newly-established Centre for Evidence-Based Medicine in Oxford, and applied the principles of EBM in the care of his patients on the wards of Oxford's John Radcliffe Hospital. Oxford was also the home of the Cochrane Collaboration, another important organisation in the development of EBM, or evidence-based practice (EBP) as it became subsequently known.

The concept of EBM was not widely welcomed by the medical profession – it was seen as restrictive, reducing the importance of clinical expertise. In Professor Sackett's and his colleagues' view, the idea was to integrate the best available evidence with clinical expertise and the patient's values and preferences when making decisions about healthcare.[1] In practice, he took an 'evidence cart' (trolley) on ward rounds to which the clinical team could refer when answering any clinical queries. 'Educational prescriptions' were also written for the medical staff, who then searched for evidence to inform a clinical decision and present at a clinical meeting.

In order to make decisions, the best evidence from research was required. As most decisions were about treatment, this required research that reliably measured the effects of treatment. Randomised controlled trials (RCTs) had for many years been the study design used for measuring the effect of drug treatment. RCTs are considered 'gold standard' as they potentially reduce the influence of bias, which may be the result of patients, staff or researchers having particular expectations of treatment or preconceived ideas on the likely outcome of the trial. Randomising patients to treatment groups should ensure that any factors likely to affect response are distributed evenly across the groups and that people remain unaware to which treatment the patient has been allocated. Obviously, for allocation to remain unknown, a placebo treatment identical to the test treatment must be used. For drug treatment, this masking or blinding is relatively simple to achieve with placebo tablets that are identical to the active medication but lacking the active ingredient. Rigorous trials also have strict inclusion and exclusion criteria for participants, and standardised treatment.

Applying the principles in practice

It soon became clear that large numbers of RCTs were being conducted but the rigour of the methods and the reported results varied. It was essential that health professionals developed skills in searching for research and appraising its quality. While efforts were made to provide health professionals with these skills – one of my roles as an evidence-based practice adviser was to facilitate this and these skills continue to be important for anyone working in healthcare – it also became clear that this was a time-consuming process for the busy clinician. Without fairly advanced skills, it was unlikely that all the relevant trials (or evidence) would be found. The concept of systematic reviews was introduced and these rapidly took over as the best evidence on treatment effects. The reason for this is that these involve identifying all the trials that have been conducted, assessing their quality and summarising the results either narratively or statistically (a meta-analysis). Large numbers of systematic reviews have now been published on a wide range of treatments, including complementary therapies for numerous health conditions.

While the principles of RCTs work relatively well for drug treatment, for other therapies they are not as straightforward. It is not possible to mask all types of treatments, for example physical treatments or surgery, and it is difficult to find suitable 'placebo' or control treatments for complex interventions that involve a human element, as in the case of aromatherapy massage. In complementary medicine, treatment is often individualised and varies across the course of treatment, while diagnostic methods differ from those in conventional medicine. These points are important when interpreting the evidence on complementary therapies. [To read an article on different types of research by Dr Ava Lorenc and Professor Nicola Robinson, visit www.fht.org.uk/rr/research/Lorenc]

Complementary therapies and anxiety and depression: the evidence

So how do we interpret the evidence from research on complementary therapies in conditions such as anxiety and depression, which are among the most common reasons for people to seek treatment outside conventional healthcare, and which are increasing in prevalence?

Relevant systematic reviews can be found on the Cochrane Library (www.thecochranelibrary.com), which include the full-text Cochrane reviews, conducted to rigorous standards and updated as new research is published. There are also short appraisals of selected systematic reviews published in journals, available under 'Other reviews' when searching the Cochrane Library. Systematic reviews can also be found by using the Clinical Queries search on PubMed (www.ncbi.nlm.nih.gov/pubmed), accessed via the link on the homepage.

Searching the Cochrane Library for systematic reviews on complementary therapies for anxiety will retrieve Cochrane systematic reviews on therapeutic touch, meditation, and the herbs kava, passiflora and valerian, while a search for therapies for depression will find relaxation, acupuncture, and St John's wort (*Hypericum perforatum*). Other reviews include aromatherapy, yoga, nutritional supplements, t'ai chi, acupuncture, relaxation training, autogenic training, psychotherapy, homeopathy, and hypnosis for anxiety; and massage, mindfulness meditation, t'ai chi, Chinese herbs, yoga and homeopathy for depression.

Examining the evidence more closely

The strongest evidence for either anxiety or depression is on **psychological therapies**, and these are now recommended as part of the NICE guidance on the management of depression.[2] To date, the most researched form of psychotherapy is cognitive behavioural therapy (CBT), which helps people to change patterns of thought and behaviour, examining how actions can affect thoughts and feelings. However, a series of Cochrane reviews are under way to assess different psychological therapies.

Massage is widely used in cancer care to help with the management of pain and associated anxiety and depression. However, the number of studies in people whose main problem is either anxiety or depression is limited. Nevertheless, promising findings have been reported and it appears a relatively safe treatment when administered by professionally-qualified massage therapists.[3]

The evidence on **exercise** in alleviating depression is based on 32 trials in nearly 2,000 people.[4] Most trials were of aerobic exercise, which was supervised. Exercising appears to relieve the symptoms of depression, but which type of exercise is most effective and whether exercising alone is as effective are still unclear.

'Mindful' types of exercise such as qigong, t'ai chi and **yoga** were excluded from this review yet yoga in particular has received much attention for its potential in anxiety and depression, as it combines physical and mental components. Systematic reviews in 2005 suggested that it was worth further investigation and positive results continue to be reported, although in small studies.[5,6]

The evidence on **meditation and mindfulness** is interesting. Little research has investigated meditation for depression. In fact, several case reports suggested it may cause further psychological problems for those suffering with depression. The situation is similar for anxiety; the Cochrane review of meditation therapy for anxiety disorders located only two trials,[7] although another systematic review did find more trials of meditation for anxiety linked to other health conditions.[8] Mindfulness, however, was successfully incorporated into mindfulness-based cognitive therapy and, based on several rigorous RCTs, this is now recommended for people who have recurrent depression.[2] Therefore, it does seem that these therapies may have potential.

The Cochrane systematic review on the herb **St John's wort** (*Hypericum perforatum*) for depression includes a large number of trials in more than 5,000 people, and suggests that this herb is better than placebo, and equivalent to antidepressants.[9] The trials were judged reasonably rigorous but preparations of *Hypericum perforatum* may not be standardised and quality may vary, so effects could vary. One concern in practice is that *Hypericum perforatum* interferes with the effects of many commonly used drugs including the contraceptive pill and, as with any biological preparation, adverse as well as beneficial effects can occur. The most puzzling finding of the Cochrane review though was that the effects were greater in studies carried out in German-speaking countries, although the reason was unknown.

Acupuncture is another therapy where the results of research need careful interpretation. Many trials have been conducted for both anxiety and depression but the trials were not judged to be of high quality.[10] It is difficult to find an appropriate control treatment for acupuncture, and many sham or placebo versions have been tested, but controversies remain over whether these truly have no effect. Also, many trials were conducted and published in China – so they needed to be translated and interpreted – and practice in China differs from that in the West, in that acupuncture treatment is often given daily in hospitals and diagnosis may be different. So currently, despite a large quantity of evidence, there is no definite proof from research that acupuncture works for anxiety or depression.

Self-care for anxiety and depression

Self-care is a focus for increased interest, particularly for chronic health problems, such as anxiety and depression, and several approaches lend themselves to self-care.

Based on observational studies that associate reduced physical activity with

increased depression and the evidence on exercise described above, **increasing physical activity** would appear to be a simple and effective lifestyle change to recommend for people with depression or anxiety.

Relaxation therapies also appear to have some potential benefits although they are not as effective as psychological therapies, and participants rated the effects more positively than clinicians.[11] The therapies in this review included progressive muscle relaxation, relaxation imagery and autogenic training, and it is still unclear which of these might be the best approach.

The evidence on other possible self-care options, such as **natural products** for both anxiety and depression, is summarised on the open-access resource, the Self-Care Library (www.selfcare-library.info). These short summaries with links to the original research are in the process of being updated.

Safety and choice of treatment

While the evidence on effectiveness is obviously important, there are other aspects that are equally, if not more, important. Evidence on the safety of treatments is obviously one crucial aspect. It is difficult to accurately assess safety, particularly for complementary therapies and self-care options, as it often relies on self-reports, and identifying the exact cause of an adverse event can be difficult. Data on safety is found in reports of clinical trials, observational studies and single cases, and is collected in different ways by different organisations. Efforts are, however, now being made to gather more reliable evidence on safety for therapies, such as acupuncture, by collecting data from large numbers of practitioners and their clients.

But it is also important to know about how clients make decisions on treatment. Some interesting findings related to self-care were reported by Australian researchers. One study examined why people chose different self-help treatments and found that sometimes people chose treatments that were simple, cheap and easily available, even if they did not think they were likely to be helpful.[12] Another study found that professionals and consumers endorsed similar self-help strategies, including learning relaxation methods, using a website or book based on CBT, and practising meditation or mindfulness,[13] but professionals generally rated self-help options as easier in practice than consumers. In the most recent study, exercise or physical activity was rated as the most helpful strategy but there was little association between how helpful people rated a strategy and how often they actually used it.[14] This suggests that people do need guidance and support when considering self-care for conditions such as anxiety and depression.

As we can see, the apparently simple idea of using evidence from research to inform decision-making on health issues can be complex to apply in practice. Even with large numbers of studies, it may be difficult to come to firm conclusions, and many questions related to treatment remain unanswered. Systematic reviews of the evidence do at least indicate which treatments may have potential. Several of the studies described illustrate that, when clients are involved in decision-making and particularly when they are selecting self-care, which is often the case in anxiety and depression, there are additional considerations that affect their choices and actions.

In future issues of International Therapist, we will also be featuring articles on mental health and aromatherapy, reflexology and nutrition, and more.

References

1 Sackett DL et al (1996). Evidence based medicine: what it is and what it isn't, *BMJ* **312**(7023): 71–72.
2 National Institute for Health and Care Excellence (2009). *Depression: the treatment and management of depression in adults (partial update of NICE clinical guideline 23)*. CG90. London: National Institute for Health and Care Excellence.
3 Posadzki P and Ernst E (2013). The safety of massage therapy: an update of a systematic review, *Focus on Alternative and Complementary Therapies* **18**(1): 27–32.
4 Rimer J et al (2012). Exercise for depression, *Cochrane Database of Systematic Reviews* Issue 7. Art. No.: CD004366. DOI: 10.1002/14651858.CD004366.pub5.
5 Pilkington K et al (2005). Yoga for depression: the research evidence, *Journal of Affective Disorders* **89**(1-3): 13-24.
6 Kirkwood G et al (2005). Yoga for anxiety: a systematic review of the research evidence, *British Journal of Sports Medicine* **39**(12): 884-91.
7 Krisanaprakornkit T et al (2006). Meditation therapy for anxiety disorders, *Cochrane Database of Systematic Reviews* Issue 1. Art. No.: CD004998. DOI: 10.1002/14651858.CD004998.pub2.
8 Chen KW et al (2012). Meditative therapies for reducing anxiety: a systematic review and meta-analysis of randomized controlled trials, *Depression and Anxiety* **29**(7): 545-62.
9 Linde K et al (2008). St John's wort for major depression, *Cochrane Database of Systematic Reviews* Issue 4. Art. No.: CD000448. DOI: 10.1002/14651858.CD000448.pub3.
10 Smith CA et al (2010). Acupuncture for depression, *Cochrane Database of Systematic Reviews* Issue 1. Art. No.: CD004046. DOI: 10.1002/14651858.CD004046.pub3.
11 Jorm AF et al (2008). Relaxation for depression, *Cochrane Database of Systematic Reviews* Issue 4. Art. No.: CD007142. DOI: 10.1002/14651858.CD007142.pub2.
12 Jorm AF et al (2000). Public beliefs about the helpfulness of interventions for depression: effects on actions taken when experiencing anxiety and depression symptoms, *Australian and New Zealand Journal of Psychiatry* **34**(4): 619-26.
13 Morgan AJ and Jorm AF (2009). Self-help strategies that are helpful for sub-threshold depression: a Delphi consensus study, *Journal of Affective Disorders* **115**(1-2): 196-200.
14 Morgan AJ et al (2012). Usage and reported helpfulness of self-help strategies by adults with sub-threshold depression, *Journal of Affective Disorders* **136**(3): 393-7.

Dr Karen Pilkington, from the University of Westminster, is a qualified pharmacist and information scientist. Her PhD focused on the evidence for complementary therapies in anxiety and depression. Karen has been involved in many research projects, including a Department of Health project to identify and review the evidence on complementary therapies in a range of conditions (www.rccm.org.uk/node/38). She is a member of the international advisory boards for the Cochrane Complementary Medicine Field and the European Information Centre for Complementary and Alternative Medicine, research editor of the Self-care Library (http://selfcare-library.info), and is a reviewer for the Cochrane Depression, Anxiety and Neurosis Group. www.westminster.ac.uk