Acupuncture does have a place in Evidence Based Medicine

20/11/2015 by Sarah George

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Last time I was at Western Sydney University (WSU) I was staying on campus and shared a unit with a medical doctor who was working at the local hospital. On finding out I was an acupuncturist she said, “so, is acupuncture evidence based? Our medicine is evidence based.”

I took a deep breath and summed up all of the tact I could muster and calmly replied “well, some of it is, and some of it isn’t, just like you guys.”

I’m not here to create an ‘us and them’ situation. I have great respect for a lot that western medicine has to offer. I regularly refer to GPs as I should. We do different jobs and a GP can do a lot that I can’t as an acupuncturist – I am aware of where my scope of practice ends. I consider myself to be an integrative practitioner making sure that my patients have access to all of the health practitioners who will ultimately see them reach the best outcome possible. Working as a team is good for patients.

Strap yourselves in. This is a going to be a long post. But I sincerely hope you read through to the end.
Please read this post with the intention in which it was written: to take an Evidence Based Medicine approach to all medicines and therapies regardless of the school they belong to. Patient outcomes are what matter in the end, there is no room for ego or turf wars. And working together we achieve more.

What is Evidence Based Medicine?

You could be forgiven for thinking that Evidence Based Medicine (EBM) is solely based on using only medicines/therapies that have gold standard randomised controlled trials (RCTs) to prove that they work, or at least that's what we're lead to believe through the media.
Well it isn't just that. This is only part of it. There is a lot more to it.
David Sackett is considered to be the father of EBM. He **sadly passed away this year** but made great contributions to the fields of epidemiology and best clinical practice.
Sackett considered that EBM had three fundamental components (and you may have seen these linked together in **this Venn diagram**):

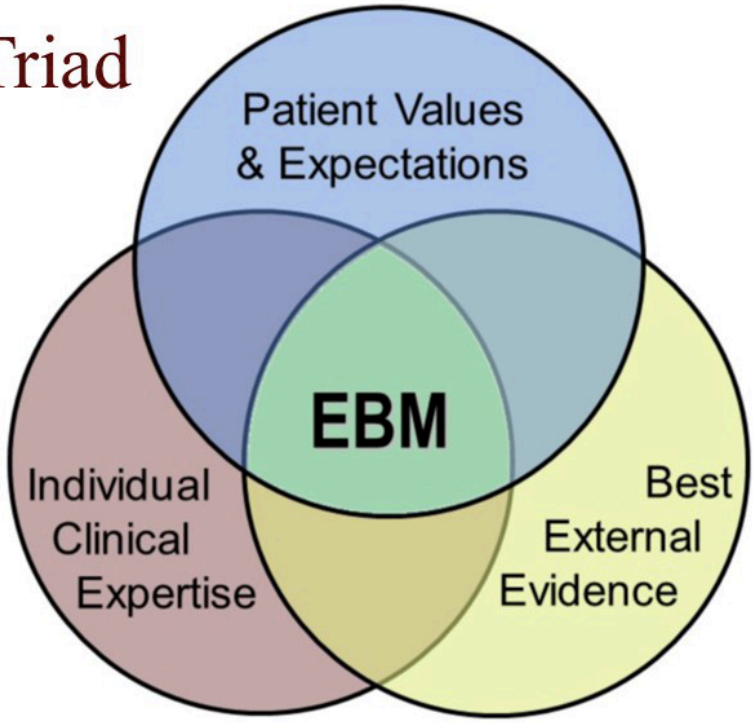
Best external evidence (eg. systematic reviews, randomised controlled trials but also research that measures qualitative patient outcomes)
Individual clinical expertise (eg. the individual experience and training of the practitioner)
Patient values and expectations (eg. what the patient will and won't do, or can and can't do)

Like the diagram implies, none of these parts always hold more weight than the others for every clinical patient situation.
Anyone who has ever managed a patient with several chronic or unusual illnesses knows that relying only on the best quality external evidence might not give you many treatment options for your patients.

Bias is alive and well

Have you ever asked your doctor or specialist, "so, is pharmaceutical medication or surgery evidence based?" No, probably not. Because it is actually a stupid question. When inquiring about evidence we want to know if there is evidence for a therapy giving a clinically significant outcome on a particular health condition or symptom. Asking if pharmaceutical medication or surgery is evidence based as a general question is not likely to give you a useful answer, just as it doesn't if you were to ask that of physiotherapy, chiropractic, osteopathy, acupuncture, Chinese medicine, massage, herbal medicine, naturopathy or nutrition. And no modality of medicine should be ruled out on such a general question. I think there is bias in anyone who thinks that you can. Bias is the opposite of what scientific research is all about.

The EBM Triad



Armstrong, E.C. (2003) Harnessing new technologies while preserving basic values. Fam Sys & Health, (21)4, 351-355.

What we're interested in is blow by blow, which therapies are best for which condition. Where we have the best external evidence we can use it. Sometimes we can't or it doesn't suit the patient's needs. And we all know that certain practitioners are sought after because they are known to have excellent clinical experience, judgement and patient care, even though they all have access to the same external evidence.

If you're still not sure that western medicine isn't completely based on the best external evidence then you should view ABC TV's **4 Corners: Wasted,** ABC TV's **Catalyst's: Too Much Medicine** and then have a listen to ABC RN's **Background Briefing: Cold Comfort: Is the fertility industry misleading women?**

Arthroscopy for osteoathritis of the knee anyone? How about a scan for that uncomplicated back pain? Do we have the clinical trials to show if that long list of medications that you're on work well together and are all still benefiting you now? Or what about freezing 10 eggs, or was it 15, to maybe fertilise some years later and possibly get a positive pregnancy test but probably not a live birth? Now, we wouldn't write off western medicine over these findings, but what we do know is we need to find therapies that might work for these patients instead. We'll also still happily use western medicine for the treatments that do show good evidence for positive patient outcomes, and there are plenty of those. It would be a shame to lose the baby with the bathwater. Let's apply the same rule to acupuncture and other integrative medicines.
I also need to point out that the gold standard of research, the double blind RCT, is best suited to therapies that involve taking a pill. Giving a 'pretend medicine' (sham) to the control group is much easier when you can give a sugar pill which looks the same as the medication. **Giving 'pretend acupuncture' is a whole lot harder.** Surgeons, physiotherapists and massage therapists all face this problem when designing randomised controlled trials. Acupuncture research will always lag in methodological quality if double blind RCTs remain the primary measurement tool of clinical effectiveness.

Which conditions does the best external evidence support acupuncture for?

If you're reading this Australian Federal Health Minister, Sussan Ley, some of these should be on the table for consideration if we are actually serious about providing the best of EBM to patients. (Because we are taking a scientific approach and aren't biased about these things are we?)
Let's not muck about and head straight to the the gold standard of medical evidence, The Cochrane Review. (Some of the authors conclusions below

rightly mention the problem with acupuncture trial methodology as discussed above).

Here are some of the author conclusions from the results of a search of acupuncture Cochrane Reviews:

Tension-type headache – *"In the previous version of this review, evidence in support of acupuncture for tension-type headache was considered insufficient. Now, with six additional trials, the authors conclude that acupuncture could be a valuable non-pharmacological tool in patients with frequent episodic or chronic tension-type headaches."*

Migraine prophylaxis – *"Available studies suggest that acupuncture is at least as effective as, or possibly more effective than, prophylactic drug treatment, and has fewer adverse effects. Acupuncture should be considered a treatment option for patients willing to undergo this treatment."*

Neck disorders – *"There is moderate evidence that acupuncture relieves pain better than some sham treatments, measured at the end of the treatment. There is moderate evidence that those who received acupuncture reported less pain at short term follow-up than those on a waiting list. There is also moderate evidence that acupuncture is more effective than inactive treatments for relieving pain post-treatment and this is maintained at short-term follow-up."*

Chronic low back pain – *"For chronic low-back pain, acupuncture is more effective for pain relief and functional improvement than no treatment or sham treatment immediately after treatment and in the short-term only. Acupuncture is not more effective than other conventional and "alternative" treatments. The data suggest that acupuncture and dry-needling may be useful adjuncts to other therapies for chronic low-back pain."*

Dysmenorrhoea (period pain) – *"Acupuncture may reduce period pain, however there is a need for further well-designed randomised controlled trials."*

Low back pain and pelvic pain in pregnancy – *"Evidence from single studies suggests that acupuncture or craniosacral therapy improves pregnancy-related pelvic pain, and osteomanipulative therapy or a multi-modal intervention (manual therapy, exercise and education) may also be of benefit."*

Pain management in labour – *"Acupuncture and acupressure may have a role with reducing pain, increasing satisfaction with pain management and reduced use of pharmacological management. However, there is a need for further research."*

Cephalic version (breech presentation) – *"There is some evidence to suggest that the use of moxibustion may reduce the need for oxytocin. When combined with acupuncture, moxibustion may result in fewer*

births by caesarean section; and when combined with postural management techniques may reduce the number of non-cephalic presentations at birth, however, there is a need for well-designed randomised controlled trials to evaluate moxibustion for breech presentation which report on clinically relevant outcomes as well as the safety of the intervention."

Irritable Bowel Syndrome (IBS) – *"In comparative effectiveness Chinese trials, patients reported greater benefits from acupuncture than from two antispasmodic drugs (pinaverium bromide and trimebutine maleate), both of which have been shown to provide a modest benefit for IBS."*

Schizophrenia – *"Limited evidence suggests that acupuncture may have some antipsychotic effects as measured on global and mental state with few adverse effects."*

But like Sackett taught, research trials are not the whole picture, sometimes we need to provide patients with treatment that may offer some benefit, with **low risk of serious adverse events**, because we simply have nothing with better evidence left to try. Acupuncture often fits into this picture when practiced by a **Chinese Medicine Board of Australia registered acupuncturist (AHPRA)**.

How does the story end?

And if you are wondering about the doctor at the beginning of the blog, well in the end she asked where she could see a Chinese Medicine practitioner to help with her low immune system because nothing else she had tried from 'her medicine' had worked. Good luck to her, I'm glad we were able to have that open minded conversation over the breakfast bench that day at WSU.