

CLINICAL BOTTOM LINES

Archimedes provides clinicians with “evidence based” answers to common questions which are not at the forefront of research but are at the core of practice, and supports the reader in expanding their knowledge of critical appraisal. The topic reviews provide a more transparent review of clinical information than the discussion sections of primary research articles or the commentaries at the front of *Archives*. It provides digests which are more readable and relevant than most systematic reviews. We should not “let the best be the enemy of the good” and should allow Archimedes to provide a balance of clinical relevance with academic integrity.

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Alternative medicine

Complementary and alternative medicine for children: a good or a bad thing?

E Ernst

Commentary on the paper by Cincotta *et al* (see page 153)

In this issue, Cincotta *et al* compare the usage of complementary and alternative medicine (CAM) in Cardiff (UK) with that of Melbourne (Australia).¹ The authors note that it is remarkably high in both places and that a number of intriguing differences exist between the two locations. They explain these through a range of sociocultural differences. Perhaps the most obvious of these is availability, and Cincotta provide data to support this hypothesis. In a

circular fashion, usage seems to determine the number of CAM practitioners which, in turn, determines usage.

In addition to these factors, there could well be others. We have, for instance, shown a striking correlation between the sales figures for BMW cars and those for CAM products.² This suggests that affluence affects CAM usage—not altogether implausible as CAM is largely private medicine. The “undue influence of the press”³ is also

noteworthy. The UK daily press depicts CAM in a significantly more positive light than conventional medicine,⁴ and many of the ~40 million (!) websites on CAM are overtly promotional and dangerously misleading.⁵ What is perhaps worse, a UK government sponsored guide⁶ is hardly any better (table 1).

The high prevalence of CAM is clearly a two edged sword. If the benefit of any given CAM therapy outweighs its risk, its use is likely to be a good thing for children. Sadly there are only very few treatments for which this is demonstrably true.⁷ For the vast majority of interventions, we cannot be sure—either because the evidence does not exist at all or because it is inconclusive.⁷ For a few treatments, however, we can say with some confidence that the risk–benefit balance is negative.⁷ Examples for these three categories are provided in table 2.

Cincotta *et al* also show that the most popular CAM treatments include vitamins, herbal medicines, and dietary supplements. It is noteworthy that the evidence for these approaches is very

Table 1 Selected statements from a recent patient guide*

Statement (quote) ⁶	Evidence ⁷
“...the risk of a stroke [after upper spinal manipulation] is between 1 and 3 million manipulations”	Due to extreme under-reporting the risk is undefined
“Acupuncture is being increasingly used for people trying to overcome addictions...”	All systematic reviews fail to show efficacy of acupuncture for this indication
“Craniosacral therapists treat a wide range of conditions from acute to chronic health problems...”	There is no trial evidence at all to suggest that craniosacral therapy is effective
“Healing is used for a wide range of ... conditions. Research has shown benefit in many areas, including healing of wounds, ... migraine or irritable bowel syndrome...”	The best evidence available to date fails to show effects beyond a placebo response

*The stated aim of the guide⁶ was “to give you [the patient] enough information to help you choose a complementary therapy that is right for you”.

Table 2 Examples of CAM treatments for indications relevant in paediatrics

Effectiveness well documented	Effectiveness uncertain	Effectiveness unlikely
Acupuncture for nausea and vomiting Biofeedback for constipation Biofeedback for headache Hypnotherapy for headache Hypnotherapy for irritable bowel syndrome Lemon balm for herpes simplex Massage for constipation	Acupuncture for asthma Acupuncture for hay fever Acupuncture for rheumatoid arthritis Chromium for diabetes Echinacea for common cold prevention or treatment Evening primrose for eczema	Acupuncture for body weight reduction Acupuncture for smoking cessation Flower remedies for anxiety Homeopathy for anxiety Spinal manipulation for asthma Spinal manipulation for infantile colic

mixed—each remedy has to be judged on its own merits⁶ and generalisations are impossible. Even where the evidence is positive, it is usually based on clinical trials with adults. Data directly derived from studies with children are extremely rare in CAM.

Some CAM enthusiasts believe that CAM cannot or should not be scientifically tested. They think that the interventions are too complex, too holistic, too individualised, etc, and the effects too subtle or un-measurable. On closer scrutiny, these arguments can be disclosed as misunderstandings of what science can and cannot do. It is, I think, important to realise that double standards in medicine are likely to be detrimental to all. Thankfully, influential bodies such as the US Institute of Medicine are crystal clear on this point: “the same principles and standards of evidence of treatment effectiveness apply to all treatments whether currently labeled as conventional medicine or CAM”.⁸

“This also applies to medicine’s most important axiom, “primum nil nocere”. The risks of CAM⁷ are not confined to the question whether or not a given treatment is safe. Even an inherently risk-free treatment (if ever such a thing existed) could be associated with indirect risks. For instance, a totally harmless (but ineffective) therapy could be administered as a true “alternative” to a proven intervention. In this case, “harmless” treatments would almost inevitably cause serious harm. A relatively well researched example of this scenario is the negative attitude of some chiropractors, homeopaths, and naturopaths towards immunisation.⁹ It is obvious to most paediatricians that a

recommendation from a homeopath to avoid all immunisations could do considerable harm. In this case, the homeopathic remedy may be free of risk; the homeopath, however, is not. A recent survey suggests that, in Canada, children consulting naturopaths are associated with non-vaccination rates that are about three times higher than the national average.¹⁰

This and other risks are further increased by a striking level of non-communication. Cincotta *et al* observe that all too often paediatricians are not informed about CAM usage, or do not ask about it, or both. A recent US survey showed that about 20% of children use medicinal herbs, but in only 34% of those cases was this treatment discussed with a physician.¹¹ Perhaps more worryingly, we have shown that medical herbalists (in the UK these are not medically qualified nor regulated individuals) readily offer advice over the internet, which is misleading at best and dangerous at worst.¹²

Cincotta *et al* rightly recommend that we develop policies about better dealing with CAM in future. The easy bit of this, I think, is to routinely ask patients or their parents about CAM use and to adequately note this in their records. The difficult part is to then advise them responsibly. This requires not just an open mind and a non-judgemental attitude; it needs up to date knowledge about which CAM interventions work and which do not, which treatments are safe and which are not.⁷ Many paediatricians might argue that they are too busy to acquire this knowledge. I fear, however, that Cincotta *et al* have shown that they have little choice.

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